CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. R2-2002-0113
ADOPTION OF MITIGATED NEGATIVE DECLARATION FOR THE RHODIA INC., PEYTON SLOUGH REMEDIATION PROJECT, MARTINEZ, CONTRA COSTA COUNTY

WHEREAS:

1. On August 15, 2001, the Regional Water Quality Control Board, San Francisco Bay Region (Board), adopted Site Cleanup Requirements, Order No. 01-094, under which Rhodia Inc. (Rhodia) is responsible for remediating contaminated sediments in and adjacent to Peyton Slough, located in the Peyton Slough Marsh system in Martinez, California;

2. On March 15, 2002, Rhodia submitted a Remedial Design Report which describes the project and sets forth the cleanup plan to remediate the contaminated sediments in and adjacent to Peyton Slough (the Project) for approval by the Board;

3. The Board has assumed the lead agency role for approving the Project under the California Environmental Quality Act (CEQA at Public Resources Code § 21000 et seq.) and has conducted an Initial Study in accordance with Title 14, California Code of Regulations, § 15063 and prepared a Mitigated Negative Declaration in accordance with Title 14, California Code of Regulations, § 15070 et seq.;

4. The Initial Study preliminarily identified potentially significant effects, but revisions in the Project have been made by or agreed to by Rhodia before release of the Initial Study and Mitigated Negative Declaration that would avoid or mitigate the effects to a point where clearly no significant effects would occur. In addition, the Initial Study identified mitigation measures to avoid or reduce potentially significant impacts, which mitigation measures the Board will impose when approving the Project. A Mitigation Monitoring and Reporting Program (MMRP) has been prepared and is attached to the Mitigated Negative Declaration;

5. On September 4, 2002, the Board provided a Notice of Intent to adopt the Mitigated Negative Declaration to the public, responsible agencies, trustee agencies, and other interested persons. The Board also published the Notice of Intent in two newspapers in the area affected by the Project, noting availability of the Mitigated Negative Declaration and supporting Initial Study at the Board's offices, the Board's website, and the Martinez public library;

6. On September 4, 2002, the proposed Mitigated Negative Declaration, and supporting Initial Study and MMRP were transmitted by the State Clearinghouse (SCH No. 2002092006) and copies were independently mailed to all agencies and persons

known to be interested in this matter, thus initiating a 30 day public review and comment period;

7. The Board has received and considered comments on the Mitigated Negative Declaration and supporting documents;

8. The Board finds that on the basis of the whole record that there is no substantial evidence that the Project, as revised and mitigated, will have a significant effect on the environment. The Mitigated Negative Declaration, all supporting documentation, and the record of proceedings are available at the Board's offices;

9. The Mitigated Negative Declaration reflects the independent judgment and analysis of the Board; and

10. The Board considered all testimony and evidence at a public hearing held October 16, 2002 in Oakland, California, and good cause was found to adopt the Mitigated Negative Declaration.

THEREFORE BE IT RESOLVED, that the Board hereby adopts the Mitigated Negative Declaration and MMRP for the Project.

I, LORETTA K. BARSAMIAN, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 16, 2002.

Loretta K. Barsamian

Loretta K. Barsamian
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. R2-2002-0114
APPROVAL OF THE REMEDIAL DESIGN REPORT FOR THE RHODIA INC., PEYTON SLOUGH REMEDIATION PROJECT, MARTINEZ, CONTRA COSTA COUNTY

WHEREAS:

1. On August 15, 2001, the Regional Water Quality Control Board, San Francisco Bay Region (Board), adopted Site Cleanup Requirements, Order No. 01-094, under which Rhodia Inc. (Rhodia) is responsible for remediating contaminated sediments in and adjacent to Peyton Slough, located in the Peyton Slough Marsh system in Martinez, California;

2. The Site Cleanup Requirements require Rhodia to submit a cleanup plan and schedule to remove and remediate the contaminated sediments in and adjacent to Peyton Slough;

3. On March 15, 2002, Rhodia submitted such a cleanup plan entitled the Remedial Design Report for approval by the Board;

4. Under the Remedial Design Report, Rhodia proposes to remediate the contaminated sediments in and adjacent to Peyton Slough by removing dredge spoil piles along the bank of the existing slough alignment, capping the existing alignment to contain contaminated sediments within the channel, and excavating a new slough alignment to the east of the existing alignment;

5. Based on an Initial Study, the Board has prepared and adopted on October 16, 2002, a Mitigated Negative Declaration, along with a Mitigation Monitoring and Reporting Program, for the remediation project described in the Remedial Design Report;

6. The Mitigated Negative Declaration includes various mitigation measures to avoid and/or reduce environmental impacts associated with the remediation project to less than significant levels, which mitigation measures need to be imposed as conditions of approval of the Remedial Design Report;

7. The Board has considered the Mitigated Negative Declaration; and

8. The Board desires to approve the Remedial Design Report to allow for the cleanup of the Peyton Slough area.

THEREFORE BE IT RESOLVED, that the Board hereby approves the Remedial Design Report for the Rhodia Peyton Slough Remediation Project, Martinez, California, Contra Costa County, subject to the following conditions:

1. Rhodia shall implement all the mitigation measures set forth in the Mitigated Negative Declaration and Initial Study, and shall comply with the Mitigation Monitoring and Reporting Program adopted by the Board.

2. Rhodia shall submit to the Executive Officer for concurrence any minor design modifications to the remediation project. The Executive Officer may concur on the minor design modifications provided they are consistent with the approved Remedial Design Report.

I, LORETTA K. BARSAMIAN, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 16, 2002.

Loretta K. Barsamian

Loretta K. Barsamian
Executive Officer

Rhodia Inc. Peyton Slough Remediation Project, Martinez, Contra Costa County – Adoption of Mitigated Negative Declaration and Approval of Remedial Design Report
File No. 2119.1045 (PG)

October 16, 2002 San Francisco Bay Regional Water Quality Control Board Meeting
Resolution to Adopt Mitigated Negative Declaration
Resolution No. R2-2002-0113
Resolution to Approve Remedial Design Report
Resolution No. R2-2002-0114

Distribution Package Includes:

1. Distribution Cover Letter
   (copy – original sent to discharger)
2. Resolution to Adopt Mitigated Negative Declaration (No. R2-2002-0113)
   (original)
3. Resolution to Approve Remedial Design Report (No. R2-2002-0114)
   (original)
4. Notice of Determination
   (copy – original sent to State Clearinghouse)
5. Mitigated Negative Declaration
   (original)
6. Mitigation Monitoring and Reporting Program
   (original)
7. Executive Summary for the October 2002 Remedial Design Report
   (original)
8. Comment Letters on the Mitigated Negative Declaration and Initial Study
   (copies – originals in case file)
9. Response to Comments on the Mitigated Negative Declaration and Initial Study
   (original)

NOTICE OF DETERMINATION

TO: Office of Planning and Research
P.O. Box 3044
Sacramento, California 95812

FROM: California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street
Oakland, California 94612

DATE: October 16, 2002

PROJECT TITLE: Rhodia Inc., Peyton Slough Remediation Project

STATE CLEARING HOUSE NUMBER: 2002092006

CONTACT PERSON: Rhodia, Inc.
Attn: Ms. Mary Brown, Project Manager
259 Prospect Plains Road, CN 7500
Cranbury, New Jersey 08512

PROJECT LOCATION: 100 Mococo Road, Martinez, California

PROJECT DESCRIPTION:

Pursuant to the requirements of Section 13304 of the California Water Code, on August 15, 2001, the California Regional Water Quality Control Board, San Francisco Bay Region (Board), adopted Site Cleanup Requirements, Order No. 01-094, under which Rhodia Inc. (Rhodia) is responsible for remediating contaminated sediments in and adjacent to Peyton Slough, located in the Peyton Slough Marsh system in Martinez, California.

On March 15, 2002, Rhodia submitted a Remedial Design Report which describes the project and sets forth the cleanup plan to remediate the contaminated sediments in and adjacent to Peyton Slough (the Project) for approval by the Board. On September 9, 2002, Rhodia submitted Revision 1 of the Remedial Design Report which has been updated to reflect mitigation alternatives agreed upon by agencies and involved parties, and to include additional sampling data.

The Board has assumed the lead agency role for approving the Project under the California Environmental Quality Act (CEQA at Public Resources Code § 21000 et seq.) and has conducted an Initial Study in accordance with Title 14, California Code of Regulations, § 15063 and prepared a Mitigated Negative Declaration in accordance with Title 14, California Code of Regulations, § 15070 et seq.

Background:

The Project is designed to remediate contaminated sediments in and adjacent to Peyton Slough, located in the Peyton Slough Marsh system in Contra Costa County, California. Copper and zinc are the primary chemicals of concern (COCs), as well as low pH. Elevated levels of COCs and low pH have been identified in specific areas in the Peyton Slough Marsh system, particularly north of Waterfront Road. These areas of concern have been delineated based on extensive sampling and analysis, and consist principally of sediments within Peyton Slough and the dredge spoil piles that were placed along the bank of Peyton Slough during routine dredging.

The Project would consist of (1) excavating a new alignment for Peyton Slough east of the existing Slough and rerouting the water flow, (2) removing dredge spoil piles adjacent to Peyton Slough, (3) dewatering and capping the existing Slough in-situ, and (4) implementing a restoration plan that would revegetate the impacted wetlands and the new cap. In summary, the Project would re-align the existing Peyton Slough and cap the existing slough.

The approval of this Project by the Board is considered a discretionary decision subject to the environmental impact review process under CEQA.

Findings:

Based upon a review of all relevant CEQA documents and supporting information, and acting in its capacity as Lead Agency under CEQA, the Board has determined that the activities proposed in the Project would not result in a significant effect on the environment.

An Initial Study has been prepared by URS Corporation on behalf of the RWQCB. On the basis of this study it is determined that the Project would not have a significant effect upon the environment for the following reasons:

- **The proposed action would have no impacts on** *Agricultural Resources; Land Use and Planning*; *Mineral Resources*; *Population and Housing*; *Public Services*; and *Recreation.*

- **The proposed project would have a less-than-significant impact on** *Geology and Soils*; *Hazards and Hazardous Materials; Hydrology and Water Quality; Transportation and Traffic*; and *Utilities and Service Systems* **and would create less-than-significant temporary** *Noise* **impacts during construction only.**

- **Potentially significant impacts to** *Air Quality*; *Biological Resources*; and *Cultural Resources* **would be mitigated to less than significant levels.**

The Project would employ impact avoidance and minimization mitigation measures as part of project design, as well as compensatory mitigation measures to reduce potentially significant impacts to the environment as described in the Mitigated Negative Declaration and Initial Study.

In accordance with the requirements of CEQA, this Notice of Determination is filed in compliance with section 21108 of the Public Resources Code. The Board, as Lead Agency, approved the above described project on October 16, 2002.

Copies of the Mitigated Negative Declaration and Initial Study, the Remedial Design Report Revision 1, the Mitigation Monitoring and Reporting Program, and supporting information may be viewed at the following location:

California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street
Oakland, California 94612

Loretta K. Barsamian — 10.18.02

Loretta K. Barsamian
Executive Officer
California Regional Water Quality Control Board, San Francisco Bay Region

Date

Date received for filing at OPR:

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
MITIGATED NEGATIVE DECLARATION (MND)

Pursuant to: Division 13, Public Resources Code

Description: The Peyton Slough Remediation Project (proposed project) is designed to remediate contaminated sediments in and adjacent to Peyton Slough, located in the Peyton Slough Marsh system in Contra Costa County, California. The proposed project is mandated by Site Cleanup Requirements, Order No. 01-094 issued by the Regional Water Quality Control Board (RWQCB) requiring the property owner (Rhodia Inc.) to remediate the site. Copper and Zinc are the primary chemicals of concern (COCs), as well as low pH. Elevated levels of COCs and low pH have been identified in specific areas in the Peyton Slough Marsh system, particularly north of Waterfront Road. These areas of concern (AOCs) have been delineated based on extensive sampling and analysis, and consist principally of sediments within Peyton Slough and the dredge spoil piles that were placed along the bank of Peyton Slough during routine dredging.

In summary, the proposed project would consist of (1) excavating a new alignment for Peyton Slough east of the existing Slough and rerouting the water flow, (2) removing dredge spoil piles adjacent to Peyton Slough, (3) dewatering and capping the existing Slough in-situ, and (4) implementing a restoration plan that would revegetate the impacted wetlands and the new cap. In summary, the proposed project would re-align the existing Peyton Slough and cap the existing slough.

Determination: An Initial Study has been prepared by URS Corporation (URS) on behalf of the RWQCB. On the basis of this study it is determined that the proposed action would not have a significant effect upon the environment for the following reasons:

- **The proposed action would have no impacts on** *Agricultural Resources; Land Use and Planning*; *Mineral Resources*; *Population and Housing*; *Public Services*; and *Recreation.*

- **The proposed project would have a less-than-significant impact on** *Geology and Soils*; *Hazards and Hazardous Materials; Hydrology and Water Quality; Transportation and Traffic*; and *Utilities and Service Systems* **and would create less-than-significant temporary** *Noise* **impacts during construction only.**

- **Potentially significant impacts to** *Air Quality*; *Biological Resources*; and *Cultural Resources* **would be mitigated to less than significant levels.**

The proposed project would employ the following impact avoidance and minimization mitigation measures as part of project design, as well as compensatory mitigation measures to reduce potentially significant impacts to the environment:

Air Quality

AIR-1. Comply with Bay Area Air Quality Management District (BAAQMD) Control Measures contained in Table 2 of the 1996 BAAQMD CEQA Guidelines.

Avoidance and Minimization:

- Water all active construction areas as needed to minimize and control dust;
- Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard (the space between the top of the load and the top of the truck bed);
- Pave, apply water as needed, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites;
- Sweep (with water sweepers) all paved access roads, parking areas, staging areas, and adjacent public streets if soil material is visible;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more);
- Enclose, cover, water, or apply (non-toxic) soil stabilizers to exposed stockpiles of material that can generate dust;
- Limit traffic speeds on unpaved roads to 15 mph; and
- Use Best Available Technology to reduce emissions from construction equipment.

Biological Resources

BIO-1. Sacramento splittail.

Avoidance and Minimization: Sacramento splittail foraging in the existing Slough could be significantly impacted by construction activities and the operation of the new alignment, as described above. Significant construction-related impacts would be avoided and minimized via project design measures, which would involve: (1) the placement of coffer dams at the lowest tide possible when dewatering the existing Slough, (2) seining the remaining waters behind the coffer dams in sections to relocate all aquatic federal and state protected species, (3) maintaining an operational slough throughout the project, and (4) reconnecting existing side channels. A licensed fisheries biologist would supervise these measures.

Compensatory Mitigation: Implement mitigation measures WET-1 through WET-5.

BIO-2. Steelhead, Chinook salmon winter-run ESU, spring-run ESU, and fall/late fall-run ESU.

Avoidance and Minimization: Any potential impacts to individuals that are found in the existing Slough prior to capping would be minimized through project design, which would involve: (1) the placement of coffer dams at the lowest tide possible when dewatering the existing Slough, (2) seining the remaining waters behind the coffer dams in sections to relocate all aquatic

federal and state protected species, (3) maintaining an operational slough throughout the project, and (4) reconnecting side channels.
Compensatory Mitigation: Implement mitigation measures WET-1 through WET-5.

BIO-3. Red-legged Frog (RLF).
Avoidance and Minimization: Immediately prior to any construction activities, a USFWS-approved biologist would perform pre-construction surveys for the presence of RLF within the project site south of the levee. Nocturnal surveys would include the use of headlamps, flashlights, or spotlights to search for eye-shine. During the diurnal surveys, the banks of the Slough would be searched from a distance with binoculars prior to moving into the area. Any RLF observed within the project site would be captured by hand or dipnet and moved to a USFWS-approved site upstream (inland) of the construction area (downstream is fully tidal). If bullfrogs are encountered during the surveys, they would be captured and eliminated. If no RLF are identified during pre-construction surveys, no further actions would be necessary.

If pre-construction surveys identify the RLF, the following measures would be implemented:

- A qualified wildlife biologist would monitor project activities to ensure that all protection measures are implemented and to temporarily halt activities to capture and move any RLF observed in the work area;
- Any RLF observed, captured, and/or relocated would be documented in a report to be submitted to USFWS;
- Exclusion fencing (e.g., silt fences) would be installed as appropriate to prevent the RLF from entering the work area, and a biological monitor would check the fence integrity on a daily basis to ensure that no animals are at the fence line.
- A training session for construction workers would be conducted prior to the onset of construction activities. At a minimum, the training would include a description of the RLF and its habitat, the importance of the RLF and its habitat, the general measures that are being implemented to conserve RLF as they relate to the project, instructions for what to do if a RLF is found, the penalties for not complying with the Endangered Species Act, and the boundaries within which the project would be accomplished.

BIO-4. Salt Marsh Harvest Mouse (SMHM).
Avoidance and Minimization: Based on the assumption of presence by USFWS, measures would be incorporated into project design to help avoid and minimize potential impacts to SMHM, including (1) delineating the areas of construction impact with construction fencing and/or silt fencing, and (2) removal of habitat in accordance with USFWS requirements, or trapping and relocation of mice within the new alignment and the AOC prior to construction activities.

Compensatory Mitigation: In accordance with the USFWS requirement for mitigation, the high quality SMHM habitat (0.6 acres) would be compensated at a ratio of 3:1 (1.8 acres). Low quality SMHM habitat, composed of areas impacted in the marsh plain north of the levee that is not high quality SMHM habitat, would be compensated at a 2:1 ratio. The total habitat mitigation required for SMHM is the reestablishment of 18.5 acres of SMHM habitat (Note: Final habitat loss and mitigation requirements will be calculated from final construction plans). This habitat would include pickleweed (*Salicornia virginica*) and other native, obligate wetland species, which would be accomplished by year ten of the restoration described in Section D.5 of the IS. During wetland monitoring and management activities, the rate of growth of marsh vegetation would be monitored and compared to the performance criteria established for the restoration portion of the project. If the rate of natural marsh vegetation re-colonization is not meeting the performance criteria, adaptive management would be implemented in order to meet USFWS requirements within ten years of completing construction.

BIO-5. California black rail.

Avoidance and Minimization: Black rail habitat in the construction zone would be removed outside of the breeding season and prior to construction commencement to minimize impacts to black rail. A black rail breeding season survey would be conducted to identify birds that may be in or near the construction zone.

Compensatory Mitigation: As the habitat requirements of the black rail are the same as for SMHM, Mitigation Measure BIO-4 would be implemented, as follows:

Vegetation would be cleared from the construction zone outside the breeding season (between August 1 and February 1). Clearing can be done mechanically or by hand. A biological monitor would haze (walk through) the area before starting work. If clearing is proposed during the breeding season (between February 1 and August 1), and if an active nest location is identified in the project area, a 250-foot buffer would be established.

BIO-6. Saltmarsh common yellowthroat and Suisun song sparrow.

Avoidance and Minimization: Prior to construction, a survey would be conducted to determine the extent and location of any breeding individuals and their nests within the project area, if any. Any discovered nest that does not yet have eggs or fledglings would be removed to discourage the pair from breeding in or adjacent to the project construction areas. If a discovered nest already has eggs or fledglings, it would be clearly marked and a 100-foot construction buffer would be established.

BIO-7. Mason's lilaeopsis.

Avoidance and Minimization: Prior to construction, mats of potentially impacted plants along with the dominant vegetation and root mat zone would be excavated or otherwise removed and placed outside the project area along the

shore of Carquinez Strait. Disturbance to the shoreline of Carquinez Strait in the vicinity of Peyton Slough and the new alignment has been restricted in the project design to avoid impacted Mason's lilaeopsis in these areas.
Compensatory Mitigation Plugs from the relocated mats would be taken during restoration activities and planted along the mouth in the new alignment.

BIO-8. Delta tule-pea.
Avoidance and Minimization: Prior to construction, the pea would be clearly marked with construction fencing and avoided during construction.

BIO-9. Western burrowing owl.
Avoidance and Minimization: Pre-construction surveys would be completed in accordance with DFG guidelines. If burrowing owls are present in the project area, avoidance and mitigation would be accomplished according to DFG guidelines with written approval from DFG.

BIO-10. California clapper rail.
Avoidance and Minimization: A California clapper rail breeding season survey would be performed to confirm lack of presence. USFWS standard survey protocols would be followed.

WET-1. Increase hydraulic capacity of the new alignment (Compensatory Mitigation).

- Design the new slough alignment so that flow capacity in the new channel north of the relocated tide gate is 20 percent greater than the capacity of that section of the existing Slough. This would reduce the potential need for additional dredging by CCMVCD for flood/mosquito control. Reducing the potential for future dredging would minimize unnecessary impacts to the wetlands. Furthermore, it is anticipated that widening the channel of the new alignment may enhance the wetland habitats south of the levee once the two-way tide gate begins operation.
- Provide one-time funding for CCMVCD to undertake the removal of cattails and debris from the slough channel between the railroad culvert and pipelines adjacent to the railroad (final amount provided would be based on CCMVCD contract bid). It is anticipated this action would enhance tidal influence to wetland habitats south of Waterfront Road.

WET-2. Make the new alignment more sinuous (Compensatory Mitigation). Provide for a new alignment that is more sinuous than the existing Slough. The proposed new alignment would follow an existing drainage, thereby minimizing impacts to existing pickleweed stands in North Peyton Marsh. This would benefit SMHM and black rail, and provide a more diverse flow regime within the channel, that would benefit splittail. In addition, the selected route for a more sinuous new alignment would remove a large swath of peppergrass, an invasive wetland plant species, in North Peyton Marsh.

WET-3. Install remote controlled actuators on the new tide gates (Compensatory Mitigation). Rhodia would install actuators on the three flap gates, facilitating remote and local operation of two-way flow tide gates. In addition, Rhodia would install the mechanical and electrical works for the actuators at the new tide gate, and a transmitter and receiver. CCMVCD or other tide gate operator would assume the ongoing operation and management costs. The electrically activated actuators would provide ease of tide gate management, which would improve the utilization of the gates and help control flooding and drainage of the Peyton Slough Marsh system, and would provide muted tidal action south of the levee. According to CCMVCD, the actuators would greatly optimize their management of the wetland habitats within the Peyton Slough Marsh system.

WET-4. Improve circulation within Rhodia Marsh, enhancing approximately 25 acres of degraded wetlands adjacent to Peyton Slough (Compensatory Mitigation).

- Provide two, 5 to 10-foot wide first order channels (approximately 1,000 linear feet) to enhance circulation and drain low spots within Rhodia Marsh. These channels would be designed to emulate naturally occurring sloughs in adjacent wetland environments. In addition to improving water circulation in the wetlands, these new side channels would also benefit splittail, juvenile salmonids, and other species that utilize shallow tidal water environments. These new side channels would create foraging habitat, as well as protected zones to avoid larger predatory fish. The channels would be installed using a sprite or ditcher, which is designed to make approximate 4-foot wide, 2-foot deep channels and minimize the build up of sediment along the channel by throwing sediment up to a distance of 15 feet. Multiple passes would be required in some areas to make the appropriate size channel.
- Provide hydraulic connection from Rhodia Marsh to the newly enhanced south spread wetland area using the 1,000 LF of new channel described above. Two first order channels would cross through the cap and provide a hydraulic connection to the south spread area and new alignment. The cap in these two locations would be lowered to allow the first order channels to pass through. These channels would be approximately 2-feet deep. A protective liner under the channel crossing and erosion protection would be installed to protect the cap in these two first order channels.

WET-5. Provide first order channels to enhance marsh function north of tide gate (Compensatory Mitigation).

- Provide approximately 1,400 LF of new first order channels along the new alignment north of the tide gate (note: these are in addition to the channels described in WET-4). This newly created footage of channels would reconnect the existing side channels north of the levee to the new alignment and the Strait, and would add three new first order channels. The 1,400 LF includes two new channels, a new channel west of the mouth of the existing Slough connected to the Strait, and the extension of two existing channels in

order to connect to the new alignment. Additional first order channels would consist of 5 to 10-foot wide channels installed from approximately -3 feet NGVD to the new alignment. Besides improving water circulation in the wetlands, these new side channels would also benefit splittail, juvenile salmonids, and other species that utilize shallow tidal water environments. These newly created first order channels and channel extensions would create foraging habitat as well as protected zones to avoid larger predatory fish. The channels would be installed using a sprite or ditcher. The sprite is designed to make approximate 4-foot wide, 2-foot deep channels and minimize the build up of sediment along the channel by throwing sediment up to a distance of 15 feet. Multiple passes would be required in some areas to make the appropriate size channel.

WET-6. Enhance the degraded south spread wetland area (Compensatory Mitigation).

- Raise the elevation and grade the south spread wetland area in order to create tidal marsh habitat. In addition to providing first order channels in the Rhodia Marsh, the south spread area would be enhanced by backfilling the area to an elevation that provides draining and flooding sufficient to support wetland vegetation. The area would be graded to provide similar drainage features as in the north marsh, allowing for flushing of tidal waters into the reaches of the newly created tidal wetlands. This would provide habitat for nesting and foraging for the SMHM.

WET-7. Control invasive species during the restoration and monitoring period (Compensatory Mitigation).

- Manage aggressive, non-native vegetation in the project area including assessment and controlling the establishment and distribution of perennial peppergrass (*Lepidium latifolium*) and smooth cordgrass (*Spartina alterniflora*). The current site contains almost no cordgrass and this species is not expected to be a problem. Monitoring inspections would be conducted in the spring, as the plants are sprouting. Rodeo, or other herbicide licensed for use in aquatic environments would be applied to young plants. Due to the prolific ability of this species to set seed and the high rate of successful germination of these seeds, the monitoring and control would be performed in the spring prior to the setting of seed. Herbicides approved for use in an aquatic environment, would be applied by experienced personnel in compliance with current local, state, and federal standards, and in such a way as to minimize over spraying that could result in water pollution.

Cultural Resources.

CUL-1. Archaeological Resources.

Avoidance and Minimization: If previously unidentified cultural resources are discovered during project construction, project activities in the immediate

vicinity of the discovery shall be halted and the Project Sponsor shall take all reasonable measures to avoid or minimize harm to the discovered resource until a qualified archaeologist can assess the discovery. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to directly or indirectly destroy a unique archaeological resource.

CUL-2. Paleontological Resources.

Avoidance and Minimization: If previously unidentified paleontological resources are discovered during project implementation, project activities in the immediate vicinity of the discovery shall be halted and the Project Sponsor would take all reasonable measures to avoid or minimize harm to the discovered resource until a qualified paleontologist assesses the find. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to directly or indirectly destroy a unique paleontological resource or unique geological feature.

CUL-3. Human Remains.

Avoidance and Minimization: Should human remains be encountered during project implementation, work in the immediate vicinity of the discovery would halt and the County Coroner would be notified immediately. If the remains are determined to be Native American, the coroner would contact the Native American Heritage Commission. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to significantly disturb human remains.

ADDITIONAL MINIMIZATION MEASURES: The following are actions incorporated by Rhodia into the project design that would help re-establish existing conditions at the project site.

1. Placing construction fencing around the site boundaries to separate construction areas from the work exclusion area;
2. Placing silt fencing along both banks of the existing Slough to avoid impacts to water quality and aquatic wildlife from the sloughing of AOC or road materials;
3. Using mouth of existing Peyton Slough No. 1 as mouth of new alignment (minimizes impacts to marsh plain habitat);
4. Adjusting the construction schedule or removing habitat (following USFWS and CDFG guidelines) to avoid sensitive species during peak spawning, breeding, and nesting seasons;
5. Seining or otherwise removing aquatic wildlife (in addition to the species described in BIOs listed above) that may be caught in the existing Slough immediately after it is dewatered, then relocating captured animals to appropriate locations outside of the project area;
6. Ensuring the reestablishment of native obligate and facultative wetland species in all impacted areas within the wetland environment using monitoring, active management of non-native and invasive species, and employing adaptive management practices as needed to meet performance criteria (as described in IS Section D.5);

7. Sizing the new channel to, at a minimum, replicate the existing Slough (hydraulic capacity would be increased in the northern reach of the new alignment as compensatory mitigation described in WET-1);
8. Ensuring that side channels to the existing Slough are reconnected to the new alignment (see WET-5);
9. Grading restored areas to provide continuous marsh systems;
10. Using areas that would be disturbed (new alignment and dredge spoil piles) as access routes to minimize the impacts of roadways on the marsh plain;
11. The proposed project would substantially alter the existing drainage pattern of the project site by altering the course of the existing Slough and potentially paving and grading portions of Rhodia's property. However, project design of the new alignment and modifications to Rhodia's existing onsite storm water collection system would minimize any potential impact due to increased run-off that could result in increased flooding, erosion, or siltation of the new alignment. Construction activities that could impact water quality would be required to prepare and comply with a construction SWPPP. Rhodia would be responsible for filing a notice of intent (NOI) to be covered under the General Construction Storm Water Permit and/or an NPDES permit for discharge of pumped and treated groundwater for excavation dewatering. The contractor would also be responsible for preparing and submitting a construction SWPPP, as part of the NPDES permitting, prior to construction.

Mitigation monitoring would be conducted in accordance with the requirements and schedule indicated in the project Mitigation Monitoring and Reporting Plan, and any other requirements stipulated in permits from resource agencies.

Loretta K Barsamian — *Lead Agency Representative*

10.18.02 — *Date Signed*

Loretta K. Barsamian
Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Project: Peyton Slough Remediation Project, Martinez, CA

Lead Agency: California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400, Oakland, CA 94612

MMRP TABLE

Mitigation Measure #	Mitigation Measure	Project Phase	Person or Agency Responsible	Frequency of Monitoring	Report Due	Date Report Received	Compli-ance
Biological Resources							
AIR-1	**Comply with Bay Area Air Quality Management District (BAAQMD) Control Measures contained in Table 2 of the 1996 BAAQMD CEQA Guidelines. Avoidance and Minimization:** • Water all active construction areas as needed to minimize and control dust; • Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard (the space between the top of the load and the top of the truck bed); • Pave, apply water as needed, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas,	Construction	Rhodia	As needed for compliance.	Not applicable.		

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	and staging areas at construction sites; • Sweep (with water sweepers) all paved access roads, parking areas, staging areas, and adjacent public streets if soil material is visible; • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more); • Enclose, cover, water, or apply (non-toxic) soil stabilizers to exposed stockpiles of material that can generate dust; • Limit traffic speeds on unpaved roads to 15 mph; and • Use Best Available Technology to reduce emissions from construction equipment.						
BIO-1	**Sacramento splittail. Avoidance and Minimization:** Sacramento splittail foraging in the existing Slough could be significantly impacted by construction activities and the operation of	Design and Construction	Rhodia	See WET-1 through WET-5.	See WET-1 through WET-5.		

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	the new alignment, as described above. Significant construction-related impacts would be avoided and minimized via project design measures, which would involve: (1) the placement of coffer dams at the lowest tide possible when dewatering the existing Slough, (2) seining the remaining waters behind the coffer dams in sections to relocate all aquatic federal and state protected species, (3) maintaining an operational slough throughout the project, and (4) reconnecting existing side channels. A licensed fisheries biologist would supervise these measures. **Compensatory Mitigation:** Implement mitigation measures WET-1 through WET-5.						

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BIO-2	**Steelhead, Chinook salmon winter-run ESU, spring-run ESU, and fall/late fall-run ESU.** **Avoidance and Minimization:** Any potential impacts to individuals that are found in the existing Slough prior to capping would be minimized through project design, which would involve: (1) the placement of coffer dams at the lowest tide possible when dewatering the existing Slough, (2) seining the remaining waters behind the coffer dams in sections to relocate all aquatic federal and state protected species, (3) maintaining an operational slough throughout the project, and (4) reconnecting side channels. **Compensatory Mitigation:** Implement mitigation measures WET-1 through WET-5.	Design and Construction	Rhodia	See WET-1 through WET-5.	See WET-1 through WET-5.		

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BIO-3	**Red-legged Frog (RLF). Avoidance and Minimization:** Immediately prior to any construction activities, a USFWS-approved biologist would perform pre-construction surveys for the presence of RLF within the project site south of the levee. Nocturnal surveys would include the use of headlamps, flashlights, or spotlights to search for eye-shine. During the diurnal surveys, the banks of the Slough would be searched from a distance with binoculars prior to moving into the area. Any RLF observed within the project site would be captured by hand or dipnet and moved to a USFWS-approved site upstream (inland) of the construction area (downstream is fully tidal). If bullfrogs are encountered during the surveys, they would be captured and eliminated. If no RLF are identified during pre-construction surveys, no further actions would be necessary.	Pre-construction and construction	Rhodia, RWQCB	Pre-construction surveys would be conducted by a qualified biologist licensed to handle RLF three weeks before construction. The surveys would cover all required areas on three separate occasions. If a monitor is required, monitoring would be conducted by a qualified biologist licensed to handle RLF. The monitor would have the authority to stop construction in the vicinity of where a RLF is sighted (if any).	A pre-construction survey report would be submitted to RWQCB prior to construction activities. Rhodia would be responsible for submitting the survey report to RWQCB, USACE, and USFWS. If a monitor is required, the monitor would log every incident involving an RLF. A report would be prepared and submitted to RWQCB at the end of each construction season. Rhodia would be required to submit the monitoring report		

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	If pre-construction surveys identify the RLF, the following measures would be implemented: • A qualified wildlife biologist would monitor project activities to ensure that all protection measures are implemented and to temporarily halt activities to capture and move any RLF observed in the work area; • Any RLF observed, captured, and/or relocated would be documented in a report to be submitted to USFWS; • Exclusion fencing (e.g., silt fences) would be installed as appropriate to prevent the RLF from entering the work area, and a biological monitor would check the fence integrity on a daily basis to ensure that no animals are at the fence line. A training session for construction workers would be conducted prior to the onset of construction activities. At a minimum, the training would include a description of the RLF and its habitat, the importance of				to RWQCB, USACE, and USFWS.		

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	the RLF and its habitat, the general measures that are being implemented to conserve RLF as they relate to the project, instructions for what to do if a RLF is found, the penalties for not complying with the Endangered Species Act, and the boundaries within which the project would be accomplished.						

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BIO-4	**Salt Marsh Harvest Mouse (SMHM).** **Avoidance and Minimization:** Based on the assumption of presence by USFWS, measures would be incorporated into project design to help avoid and minimize potential impacts to SMHM, including (1) delineating the areas of construction impact with construction fencing and/or silt fencing, and (2) removal of habitat in accordance with USFWS requirements, or trapping and relocation of mice within the new alignment and the AOC prior to construction activities. **Compensatory Mitigation:** In accordance with the USFWS requirement for mitigation, the high quality SMHM habitat (0.6 acres) would be compensated at a ratio of 3:1 (1.8 acres). Low quality SMHM habitat, composed of areas impacted in the marsh plain north of the levee that is not high quality SMHM habitat, would be	Post-construction	Rhodia	Habitat monitoring in years 1 (for baseline data), 3, 5, 7 and 10, post construction. Field surveys would be conducted on the marsh plain to assess species composition, relative frequency, and percent cover of vegetation in each September of years 1 (for baseline data), 3, 5, 7 and 10.	The Habitat Monitoring Report due December of the year after completion of construction, and in years 3, 5, 7 and 10.		

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	compensated at a 2:1 ratio. The total habitat mitigation required for SMHM is the reestablishment of 18.5 acres of SMHM habitat (Note: Final habitat loss and mitigation requirements will be calculated from final construction plans). This habitat would include pickleweed (*Salicornia virginica*) and other native, obligate wetland species, which would be accomplished by year ten of the restoration described in Section D.5 of the IS. During wetland monitoring and management activities, the rate of growth of marsh vegetation would be monitored and compared to the performance criteria established for the restoration portion of the project. If the rate of natural marsh vegetation re-colonization is not meeting the performance criteria, adaptive management would be implemented in order to meet USFWS requirements within ten years of completing construction.						

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BIO-5	**California black rail. Avoidance and Minimization:** Black rail habitat in the construction zone would be removed outside of the breeding season and prior to construction commencement to minimize impacts to black rail. A black rail breeding season survey would be conducted to identify birds that may be in or near the construction zone. **Compensatory Mitigation:** As the habitat requirements of the black rail are the same as for SMHM, Mitigation Measure BIO-4 would be implemented, as follows: Vegetation would be cleared from the construction zone outside the breeding season (between August 1 and February 1). Clearing can be done mechanically or by hand. A biological monitor would haze (walk through) the area before starting work. If clearing is proposed during the breeding season (between February 1 and August 1), and if an active nest location is	Pre-construction	Rhodia	A black rail breeding season survey will be conducted to identify birds that may be in or near the construction zone.	A pre-construction report would be submitted to the CFGD.		

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	identified in the project area, a 250-foot buffer would be established.						
BIO-6	**Saltmarsh common yellowthroat and Suisun song sparrow. Avoidance and Minimization:** Prior to construction, a survey would be conducted to determine the extent and location of any breeding individuals and their nests within the project area, if any. Any discovered nest that does not yet have eggs or fledglings would be removed to discourage the pair from breeding in or adjacent to the project construction areas. If a discovered nest already has eggs or fledglings, it would be clearly marked and a 100-foot construction buffer would be established.	Pre-construction	Rhodia	Pre-construction survey will occur between January and mid-April 2003.	A pre-construction Survey report would be submitted to CDFG prior to construction activities. Rhodia would be responsible for submitting the survey report to CDFG.		
BIO-7	**Mason's lilaeopsis. Avoidance and Minimization:** Prior to construction, mats of potentially impacted plants along with the dominant vegetation and root mat zone would be excavated or	Pre-construction and post-construction	Rhodia	Habitat monitoring in years 1 (for baseline data), 3, 5, 7 and 10, post construction.	Included in the Habitat Monitoring Report (see BIO-4), and December of the year after completion of construction and		

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	otherwise removed and placed outside the project area along the shore of Carquinez Strait. Disturbance to the shoreline of Carquinez Strait in the vicinity of Peyton Slough and the new alignment has been restricted in the project design to avoid impacted Mason's lilaeopsis in these areas. **Compensatory Mitigation** Plugs from the relocated mats would be taken during restoration activities and planted along the mouth in the new alignment.				in years 3, 5, 7, and 10.		
BIO-8	**Delta tule-pea. Avoidance and Minimization:** Prior to construction, the pea would be clearly marked with construction fencing and avoided during construction.	Pre-construction and post-construction	Rhodia	Biological monitor will monitor plants during construction.	Not applicable.		
BIO-9	**Western burrowing owl. Avoidance and Minimization:** Pre-construction surveys would be completed in accordance with DFG guidelines. If burrowing owls are present in the project area, avoidance and mitigation would be accomplished	Pre-construction	Rhodia	Once, within 30 days of construction start.	Survey report would be submitted to CDFG prior to construction activities. Rhodia would be responsible for submitting the		

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	according to DFG guidelines with written approval from DFG.				survey report to CDFG.		
BIO-10	**California clapper rail. Avoidance and Minimization:** A California clapper rail breeding season survey would be performed to confirm lack of presence. USFWS standard survey protocols would be followed.	Pre-construction and construction	Rhodia	Once set of protocol surveys between January and April in the year construction will commence.	Survey report would be submitted to CDFG and USFWS prior to construction activities. Rhodia would be responsible for submitting the survey report to CDFG and USFWS.		
WET-1	**Increase hydraulic capacity of the new alignment (Compensatory Mitigation).** • Design the new slough alignment so that flow capacity in the new channel north of the relocated tide gate is 20 percent greater than the capacity of that section of the existing Slough. This would reduce the potential need for additional dredging by CCMVCD for flood/mosquito control. Reducing the potential for future dredging	Construction	Rhodia	Not applicable. Funding would be made available once construction is complete.	Not applicable.		

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	would minimize unnecessary impacts to the wetlands. Furthermore, it is anticipated that widening the channel of the new alignment may enhance the wetland habitats south of the levee once the two-way tide gate begins operation. • Provide one-time funding for CCMVCD to undertake the removal of cattails and debris from the slough channel between the railroad culvert and pipelines adjacent to the railroad (final amount provided would be based on CCMVCD contract bid). It is anticipated this action would enhance tidal influence to wetland habitats south of Waterfront Road.						
WET-2	**Make the new alignment more sinuous (Compensatory Mitigation):** Provide for a new alignment that is more sinuous than the existing Slough. The proposed new alignment would follow an existing drainage, thereby minimizing impacts to existing pickleweed stands in North Peyton Marsh. This would benefit SMHM and black rail,	Construction	Rhodia	Not applicable. The new alignment would be placed on the alignment shown in Figures 9 through 12.	Not applicable.		

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	and provide a more diverse flow regime within the channel, that would benefit splittail. In addition, the selected route for a more sinuous new alignment would remove a large swath of peppergrass, an invasive wetland plant species, in North Peyton Marsh.						
WET-3	**Install remote controlled actuators on the new tide gates (Compensatory Mitigation).** Rhodia would install actuators on the three flap gates, facilitating remote and local operation of two-way flow tide gates. In addition, Rhodia would install the mechanical and electrical works for the actuators at the new tide gate, and a transmitter and receiver. CCMVCD or other tide gate operator would assume the ongoing operation and management costs. The electrically activated actuators would provide ease of tide gate management, which would improve the utilization of the gates and help control flooding	Construction	Rhodia	Not applicable. Actuators would be installed once the new tide gate has been completed.	Not applicable.		

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	and drainage of the Peyton Slough Marsh system, and would provide muted tidal action south of the levee. According to CCMVCD, the actuators would greatly optimize their management of the wetland habitats within the Peyton Slough Marsh system.						
WET-4	**Improve circulation within Rhodia Marsh, enhancing approximately 25 acres of degraded wetlands adjacent to Peyton Slough (Compensatory Mitigation).** • Provide two, 5 to 10-foot wide first order channels (approximately 1,000 linear feet) to enhance circulation and drain low spots within Rhodia Marsh. These channels would be designed to emulate naturally occurring sloughs in adjacent wetland environments. In addition to improving water circulation in the wetlands, these new side channels would also benefit splittail, juvenile salmonids, and other species that utilize shallow tidal water environments. These new side	Construction	Rhodia	Cross-sectional channel dimensions will be measured once a year, at two locations in the new channels in Rhodia Marsh for years 1 (from the post-remedial survey), 3, 5, 7, and 10. Extent of marsh plain inundation during September spring tides will be mapped in years 1 (for baseline conditions), 3, 5, 7 and 10.	Included in the Habitat Monitoring Report (see BIO-4), and December of the year after completion of construction and in years 3, 5, 7, and 10.		

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	channels would create foraging habitat, as well as protected zones to avoid larger predatory fish. The channels would be installed using a sprite or ditcher, which is designed to make approximate 4-foot wide, 2-foot deep channels and minimize the build up of sediment along the channel by throwing sediment up to a distance of 15 feet. Multiple passes would be required in some areas to make the appropriate size channel. • Provide hydraulic connection from Rhodia Marsh to the newly enhanced south spread wetland area using the 1,000 LF of new channel described above. Two first order channels would cross through the cap and provide a hydraulic connection to the south spread area and new alignment. The cap in these two locations would be lowered to allow the first order channels to pass through. These channels would be approximately 2-feet deep. A						

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	protective liner under the channel crossing and erosion protection would be installed to protect the cap in these two first order channels.						
WET-5	**Provide first order channels to enhance marsh function north of tide gate (Compensatory Mitigation).** Provide approximately 1,400 LF of new first order channels along the new alignment north of the tide gate (note: these are in addition to the channels described in WET-4). This newly created footage of channels would reconnect the existing side channels north of the levee to the new alignment and the Strait, and would add three new first order channels. The 1,400 LF includes two new channels, a new channel west of the mouth of the existing Slough connected to the Strait, and the extension of two existing channels in order to connect to the new alignment. Additional first order channels would consist of 5 to 10-foot wide channels installed from approximately -	Construction	Rhodia	Cross-sectional channel dimensions will be measured once a year, for years 1 (from the post-remedial survey), 3, 5, 7, and 10, at two locations in the new channels in Peyton Slough No. 1 and in the new tributary channels. Extent of marsh plain inundation during September spring tides will be mapped in years 1 (for baseline conditions), 3, 5, 7, and 10.	Included in the Habitat Monitoring Report (see BIO-4), and December of the year after completion of construction and in years 3, 5, 7, and 10.		

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	3 feet NGVD to the new alignment. Besides improving water circulation in the wetlands, these new side channels would also benefit splittail, juvenile salmonids, and other species that utilize shallow tidal water environments. These newly created first order channels and channel extensions would create foraging habitat as well as protected zones to avoid larger predatory fish. The channels would be installed using a sprite or ditcher. The sprite is designed to make approximate 4-foot wide, 2-foot deep channels and minimize the build up of sediment along the channel by throwing sediment up to a distance of 15 feet. Multiple passes would be required in some areas to make the appropriate size channel.						
WET-6	**Enhance the degraded south spread wetland** area (Compensatory Mitigation). Raise the elevation and grade the south spread wetland area in order to create tidal marsh habitat. In addition to providing first order	Construction	Rhodia	As for BIO-4, habitat monitoring would be conducted in years 1 (for baseline data), 3, 5, 7 and 10	Included in the Habitat Monitoring Report (see BIO-4), and December of the year after		

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	addition to providing first order channels in the Rhodia Marsh, the south spread area would be enhanced by backfilling the area to an elevation that provides draining and flooding sufficient to support wetland vegetation. The area would be graded to provide similar drainage features as in the north marsh, allowing for flushing of tidal waters into the reaches of the newly created tidal wetlands. This would provide habitat for nesting and foraging for the SMHM.			Field surveys would be conducted on the marsh plain to assess species composition, relative frequency, and percent cover of vegetation in each September of years 1 (for baseline data), 3, 5, 7 and 10.	completion of construction and in years 3, 5, 7, and 10.		
WET-7	**Control invasive species during the restoration and monitoring period (Compensatory Mitigation).** Manage aggressive, non-native vegetation in the project area including assessment and controlling the establishment and distribution of perennial peppergrass (*Lepidium latifolium*) and smooth cordgrass (*Spartina alterniflora*). The current site contains almost no cordgrass and this species is not expected to be a problem. Monitoring inspections would be conducted in the spring, as the plants are sprouting. Rodeo, or other herbicide licensed for use in aquatic environments would be applied to young plants. Due to the prolific ability of this species to set seed and the high rate of successful	Construction and post-construction	Rhodia	Monitoring for invasive species will begin during the first construction season and will continue annually (in the spring) for 10 years.	Included in the Habitat Monitoring Report (see BIO-4), and December of the year after completion of construction and in years 3, 5, 7, and 10.		

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	germination of these seeds, the monitoring and control would be performed in the spring prior to the setting of seed. Herbicides approved for use in an aquatic environment, would be applied by experienced personnel in compliance with current local, state, and federal standards, and in such a way as to minimize over spraying that could result in water pollution.						
CUL-1	**Archaeological Resources. Avoidance and Minimization**: If previously unidentified cultural resources are discovered during project construction, project activities in the immediate vicinity of the discovery shall be halted and the Project Sponsor shall take all reasonable measures to avoid or minimize harm to the discovered resource until a qualified archaeologist can assess the discovery. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to directly or indirectly destroy a unique archaeological resource.	Construction	Rhodia	Not applicable.	Not applicable.		

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CUL-2	**Paleontological Resources. Avoidance and Minimization**: If previously unidentified paleontological resources are discovered during project implementation, project activities in the immediate vicinity of the discovery shall be halted and the Project Sponsor would take all reasonable measures to avoid or minimize harm to the discovered resource until a qualified paleontologist assesses the find. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to directly or indirectly destroy a unique paleontological resource or unique geological feature.	Construction	Rhodia	Not applicable.	Not applicable.		
CUL-3	**Human Remains. Avoidance and Minimization:** Should human remains be encountered during project implementation, work in the immediate vicinity of the discovery would halt and the County Coroner would be notified immediately. If the remains are determined to be	Construction	Rhodia	Not applicable.	Not applicable.		

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	Native American, the coroner would contact the Native American Heritage Commission. Such actions by the Project Sponsor and their contractor would minimize the potential for the project to significantly disturb human remains.						
ADDITIONAL MINIMIZATION MEASURES: The following are actions incorporated by Rhodia into the project design that would help re-establish existing conditions at the project site.							
1	Placing construction fencing around the site boundaries to separate construction areas from the work exclusion area.	Prior to construction	Rhodia	Not applicable.	Not applicable.		
2	Placing silt fencing along both banks of the existing Slough to avoid impacts to water quality and aquatic wildlife from the sloughing of AOC or road materials.	Prior to construction	Rhodia	Not applicable.	Not applicable.		
3	Using mouth of existing Peyton Slough No. 1 as mouth of new alignment (minimizes impacts to marsh plain habitat).	Construction	Rhodia	Not applicable.	Not applicable.		
4	Adjusting the construction schedule or removing habitat (following USFWS and CDFG guidelines) to avoid sensitive	Project design	Rhodia	Not applicable.	Not applicable.		

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	species during peak spawning, breeding, and nesting seasons.						
5	Seining or otherwise removing aquatic wildlife (in addition to the species described in BIOs listed above) that may be caught in the existing Slough immediately after it is dewatered, then relocating captured animals to appropriate locations outside of the project area.	Prior to construction in affected waters	Rhodia	Not applicable.	Not applicable.		
6	Ensuring the reestablishment of native obligate and facultative wetland species in all impacted areas within the wetland environment using monitoring, active management of non-native and invasive species, and employing adaptive management practices as needed to meet performance criteria (as described in IS Section D.5).	Post construction	Rhodia	Not applicable.	Not applicable.		
7	Sizing the new channel to, at a minimum, replicate the existing Slough (hydraulic capacity would be increased in the northern reach of the new alignment as compensatory mitigation described in WET-1).		Rhodia	Not applicable.	Not applicable.		

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8	Ensuring that side channels to the existing Slough are reconnected to the new alignment (see WET-5).	After new alignment is functioning	Rhodia	Not applicable.	Not applicable.		
9	Grading restored areas to provide continuous marsh systems.	Project design	Rhodia	Not applicable.	Not applicable.		
10	Using areas that would be disturbed (new alignment and dredge spoil piles) as access routes to minimize the impacts of roadways on the marsh plain.	Project design	Rhodia	Not applicable.	Not applicable.		
11	The proposed project would substantially alter the existing drainage pattern of the project site by altering the course of the existing Slough and potentially paving and grading portions of Rhodia's property. However, project design of the new alignment and modifications to Rhodia's existing onsite storm water collection system would minimize any potential impact due to increased run-off that could result in increased flooding, erosion, or siltation of the new alignment. Construction activities that could impact water quality	Prior to construction	Rhodia	Not applicable.	Notice of intent (NOI) submitted to the RWQCB		

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	would be required to prepare and comply with a construction SWPPP. Rhodia would be responsible for filing a notice of intent (NOI) to be covered under the General Construction Storm Water Permit and/or an NPDES permit for discharge of pumped and treated groundwater for excavation dewatering. The contractor would also be responsible for preparing and submitting a construction SWPPP, as part of the NPDES permitting, prior to construction.						

PEYTON SLOUGH REMEDIATION AND RESTORATION PROJECT EXECUTIVE SUMMARY – REMEDIAL DESIGN REPORT

OCTOBER 2002

Introduction

Rhodia, Inc. has designed and is now seeking the regulatory approvals for the Peyton Slough Remediation and Restoration Project. The proposed project would remediate contaminated sediments in and adjacent to Peyton Slough, located in Martinez, California. The contaminants consist largely of copper and zinc associated with historical mining-related operations in the area dating to nearly 100 years ago, that pre-date Rhodia's acquisition of the site and are unrelated to the company's current operations. Although Rhodia has no involvement with the contaminants' original deposition, Rhodia is committed to addressing these historical contaminants consistent with current regulatory requirements. The remediation plan will address historical copper and zinc contamination in the Slough, guard against future re-contamination, and, in the end, result in a net increase in beneficial, wetland acreage with enhancement of many additional acres of existing wetlands. The San Francisco Bay Region of the California Regional Water Quality Control Board (RWQCB) will oversee implementation of the Project. Rhodia is proposing to excavate and dredge a new alignment for the Slough, re-routing the tidal exchange via the new alignment, removing contaminated soils, and capping the existing Slough with newly created wetlands on top of clean fill.

Ownership, Background and Site Operations

Rhodia is an independent corporation that operates a sulfuric acid regeneration facility located at 100 Mococo Road in Martinez, California. The sulfuric acid is a catalyst in the production of aklylate, an octane booster in gasoline used by the petroleum refining industry. Rhodia owns approximately 114 acres immediately east of Interstate 680 on the south shore of the Carquinez Strait, adjacent to the southern end of the Benicia Bridge. The site has been in continuous industrial use since the early 1900s, and was originally owned by the Mountain Copper Company (MOCOCO). MOCOCO operated the copper ore smelter from approximately 1899 until approximately 1923. MOCOCO, prior to Rhodia, operated a pyrite roaster until approximately 1966. During the operation of the smelter and pyrite roaster, large piles of cinders and slag were deposited on the property that is now owned by Rhodia. The size and weight of the piles caused them to subside into the underlying Bay Mud. Stauffer Chemical Company purchased the property from MOCOCO in 1968, and constructed a sulfuric acid regeneration and manufacturing facility, which has been in operation since 1970. Rhone-Poulenc Inc. purchased Stauffer Chemical Company in 1987. In 1998 Rhone-Poulenc Inc. became Rhodia Inc. In 1997, the RWQCB identified a portion of the Peyton Slough as a Toxic Hot Spot in its Regional Toxic Hot Spots Cleanup Plan with copper and zinc as the primary chemicals of concern. A portion of the Peyton Slough Marsh system is on Rhodia's property. The neighboring properties are owned by the State of California and Shore Terminals.

Historic Practices/Existing Conditions

Waste by-products from the smelting operation, including copper smelting slag and pyrite ore cinders, were accumulated onsite in piles on the MOCOCO property during the first half of the 20th Century. Over the years, large piles of slag and cinders were accumulated onsite. The size

and weight of the waste piles caused the piles to subside into the soft, underlying Bay Mud. Today, the remnants of the piles extend as much as 40 feet below grade. Upon acquiring the property, Stauffer began to remove and sell the accumulated slag/cinder piles to various industries as raw material. Removal of the waste piles was discontinued in 1976 when the piles were leveled to grade.

The submerged slag/cinder piles contributed copper and zinc to groundwater. When the groundwater entered the Slough, the copper and zinc were precipitated out of solution thereby contaminating the Slough sediments. Routine historical dredging of the Slough deposited dredge spoil piles containing copper and zinc along the banks of the Slough. The Slough was last dredged in the early 1980s. Many of the dredge spoil piles have eroded and spread, particularly south of the levee.

The environmental condition in the Slough is substantially the same today as it has been for decades. The Slough and surrounding marshlands currently support important plant and animal habitats. Rhodia recognizes the need, however, to eliminate ongoing risks to the environment from decades past, and to improve the future environment for marine life, wildlife, and vegetation. Therefore, the project area includes three Areas of Concern (AOCs): 1) the bottom of the Slough from the Carquinez Strait to Waterfront Road; 2) some portions of the Slough embankments; and 3) side-cast dredge spoil piles located immediately adjacent to the Slough.

History of Remediation

Over the years the Slough has been the subject of exhaustive scientific analyses used to determine the best course of action. In 1972, Stauffer installed a groundwater extraction and storage system to prevent groundwater that passes through the underground slag/cinder piles from entering the nearby Carquinez Strait and Slough. The system has been successful in reducing water levels in the waste piles and holding the water on Rhodia's site. In 1985, the RWQCB requested a complete investigation of the entire site, and subsequently ordered the system modified to eliminate two evaporation ponds. In 1989, the system was modified to treat the water by removing the metals through a precipitation process. Closure of the evaporation ponds was completed in 1996. In 1997, a new tide gate was installed to improve drainage in the Slough system. Based on the results of previous studies conducted at the project site, the RWQCB issued Cleanup and Abatement Order No. 01-094, under Section 13304 of the California Water Code, requiring that Rhodia adopt cleanup requirements for contaminated sediment in and adjacent to the Slough.

Evaluation of Alternatives

Seven general remedial action technologies were considered as potentially applicable for the Site and screened on the basis of regulatory and technical implementability. These included: (1) no action (required by regulatory guidance), (2) institutional controls, (3) in-situ capping, (4) in-situ containment, (5) in-situ treatment, (6) removal and disposal, with no net fill, and (7) re-alignment of Slough with capping and filling of the existing Slough.

Four alternatives were developed from the two technologies considered viable and subjected to detailed evaluation using U.S. Environmental Protection Agency (EPA) guidance criteria. Based upon this evaluation, the preferred alternative, full re-alignment of Peyton Slough, was identified as offering the most significant long-term benefit.

Implementation of the full re-alignment option would minimize the potential for recontamination. Future operations and maintenance costs for future dredging of a new, clean Slough by the Mosquito Abatement District would also be minimized.

The re-alignment alternative will provide an open channel with potential to maintain habitat within the upstream McNabney Marsh. The new alignment will provide a greatly enhanced habitat and allow for closure of the existing Slough and in so doing reducing impacts to sensitive species. This alternative provides an attractive long-term solution to the larger scope of issues at Peyton Slough, as well as McNabney Marsh.

AOC Delineation

As described in Section 3.2 of the Remedial Design Report (RDR), delineation of AOCs at the site was focused mainly on the dredge spoil piles and fringes of the piles along the east and west side of the existing Slough. These piles, and the sediments in the bottom and sidewalls of the existing Slough, were identified in the Order as potential remedial areas needing evaluation. The AOC extent was initially estimated by comparing site data with the National Oceanic and Atmospheric Administration's ER-Ms. Additional sampling was conducted as part of this RDR, and during the preparation of the Initial Study (IS) to supplement historical site data in order to delineate the AOC for removal, capping, or management in place.

The existing Slough and sidewalls will be capped, as discussed in Section 3.6. The dredge spoil piles and fringes will be evaluated for removal or management in place. Where elevated ambient concentrations are present, AOC removal may not be warranted, recognizing the presence of ambient copper and zinc concentrations in sediment in the North Peyton Marsh caused by other historical uses. Figures 3.2-1 through 3.2-7 present historical and RDR/IS sampling locations and results for copper and zinc in the existing Slough bottom and embankments, and surface and subsurface soil/sediment adjacent to the existing Slough and along the new alignment.

Based on the North Peyton Marsh data, the surface sediments in North Peyton Marsh have concentrations of copper and zinc that are substantially greater than expected. The calculated ambient concentrations of copper and zinc in the surface sediments of North Peyton Marsh are 349.24 mg/kg and 1,335.64 mg/kg respectively.

The maximum lateral extent of AOC removal is defined by meeting the following criteria:

- Removal of the piles up to and including the zones of diminished copper and zinc concentrations to near or below the calculated ambient copper and zinc concentrations for North Peyton Marsh,
- Reaching the marsh plain elevation (approximately 3.2 feet NGVD to the north of the levee, and +0 foot NGVD to the south of the levee) in order to restore the marsh plain to its proper elevation, and
- Removal of localized denuded spread areas.

Following these criteria, the maximum extent of COCs to be removed including piles and spread areas, as shown in Figure 3.2-5, comprises an area of up to 20 acres. However, the extent of AOC removal may be modified based on current site conditions and permitting requirements. Areas within the AOC with existing viable wetlands may be managed in place to avoid unnecessary impact to wetlands.

Hydraulic Analysis

A hydraulic analysis (Section 3.3) of the proposed new alignment was conducted to determine the channel size necessary to provide a flow capacity equivalent to or greater than that of the existing Slough. Bathymetry data collected in the existing Slough indicated that the average cross-sectional area is about 160 ft^2 north of the levee and about 100 ft^2 or less south of the levee. As part of the proposed mitigation plan, the size of the new alignment north of the tide gate will be increased by 20%. This results in an increased cross-sectional area of 200 ft^2, and a top width of 43 feet (versus the current 38 feet).

The operation of the tide gates and hydraulic function of the wetland areas were analyzed using the RMA2 hydrodynamic model, a two-dimensional depth-averaged numerical model that computes water surface elevations and horizontal velocities. Results indicated that as more gates are opened to allow flow upstream, the tidal range increases south of the gates and decreases north of the gates. Also, the mid-tide level on the south side of the tide gates becomes higher. The greatest tidal range upstream of the tide gates will be in the south spread area with less in Rhodia Marsh, and a very small range in McNabney Marsh.

The number of gates operated does not have a large effect on Rhodia Marsh water surface elevations because of the size of the wetland. For example, the elevation of MHHW only increases by 0.2 feet when the number of gates allowing flow upstream goes from one to five.

Downstream of the tide gates, the number of gates used could have an effect on the North Marsh since the elevation of MHHW drops as more gates are opened. The southern portion of the marsh plain might be flooded less frequently as more gates are opened.

Hydrogeologic Conditions

As described in Section 3.4, three hydrostratigraphic units have been identified at the project site (H2OGEOL 2001, RWQCB 2001):

- The Water Table Unit comprises the shallowest saturated zone beneath the site. This unit is most pronounced in the southern portion of the site and is comprised of fill, bay mud and peat. All guard wells and those installed during this investigation are located in this unit which is the main focus of this study.
- The Lower Intermediate/Peat Unit is irregularly distributed in the alluvium beneath the low-lying portions of the site. This unit is particularly prevalent beneath and adjacent to the former evaporation ponds and is comprised of lenses of peat and peaty sands or mud deep within the alluvium of the site.
- The Bedrock Unit is encountered in consolidated and/or cemented material that underlies unconsolidated sediments and outcrops at the site. Some portions of this unit are confined while other portions are unconfined.

Both horizontal and vertical gradients were hard to discern in the marshplain and south of the levee. Two well clusters located near the Slough had small downward gradients but may represent drainage from the Slough bank. One well cluster located west of the Slough at a ground surface about 3 feet above the marsh plain had a small upward gradient but does not likely to represent conditions on the marsh plain. In the north marsh, groundwater generally flows towards the existing Slough or the closest local drainage ditch, with a gradient estimated to be about 0.006 feet/feet (ft/ft). On the south marsh, the gradient is unclear because much of the ground is flooded. The horizontal groundwater gradients from the area west of the existing Slough into the post-remediation cap were estimated to be about 0.0025 ft/ft.

In the shallow root zone the horizontal hydraulic conductivities ranged from 1.2×10^{-7} to 2.4×10^{-4} centimeters per second (cm/s) and vertical hydraulic conductivities ranged from 1.1×10^{-7} to 9.5×10^{-6} cm/s. In the deeper bay mud hydraulic conductivities were much lower, with the horizontal hydraulic conductivities ranging from 3.6×10^{-8} to 1.3×10^{-7} cm/s and the vertical hydraulic conductivities ranging from 6.4×10^{-8} to 1.6×10^{-7} cm/s. A slug test was conducted in well GRD-1. The calculated hydraulic conductivity was 2.6×10^{-5} cm/s.

The hydraulic conditions described above result in a horizontal groundwater flow velocity of 0.16 feet/year. This value is consistent with the results reported in H2OGEOL (2001), which reported velocities of less than 0.36 feet per year in the Water Table Unit and less than 0.036 feet per year in the Lower Intermediate/Peat Unit.

Contaminant Transport Mechanisms

After remediation areas will remain with copper and zinc soil concentrations that exceed background levels that represent potential sources of contamination to the new alignment. Contamination could occur by transport through groundwater or erosion of the surface sediments into the new alignment. As described in Section 3.5, an analysis was conducted to develop estimates of the mass loadings of copper and zinc into the new alignment from groundwater transport and from erosion and their potential to impact water quality in the new alignment.

The major conclusions of the transport analysis are:

- Average soil concentrations for copper and zinc north of the levee are less than two times background.
- In the anoxic zone below the water table, copper and zinc are expected to have very low mobility. In the oxic zone near the water table surface, mobility is controlled by equilibrium distribution coefficients and groundwater velocity.
- Approximately less than 1/100 of a percent of the average mass of copper and less than 1/20 of a percent of the zinc mass in the new alignment water will be from groundwater seepage. Water quality in the new alignment is primarily controlled by the Bay water and the MVSD discharge.
- Significant erosion is not expected anywhere in the marsh plain with the exception of potential, short-term erosion prior to establishment of vegetation along the edges of the new alignment in the area south of the levee where new fill will be placed. The spoil piles along the existing Slough are not expected to erode into the new alignment, and erosion protection measures will further ensure minimal to no sediment transport can occur to the new alignment.

- Chronic and acute surface water quality criteria for copper and zinc are unlikely to be exceeded from groundwater in the new alignment.
- There are no discernable differences in tidally-averaged or maximum copper and zinc concentrations in the new alignment if the backfill material is at background rather than at ER-Ms.

Cap Design

The purpose of the cap in the Peyton Slough is to physically and chemically isolate impacted sediments in the existing Slough bottom from the aquatic and marsh environment, as well as to restore the existing Slough to marsh habitat. Physical isolation acts to separate deeper sediments from burrowing benthic organisms. Chemical isolation is designed to control the short-term advective and long-term diffusive flux of copper and zinc in porewater from the sediments underlying the cap. Because various sections of the existing Slough have different depths available to accommodate cap material and have different ranges of COC concentrations, different approaches are necessary for different sections of the Slough.

The effectiveness of a soft sediment cap for the existing Slough was evaluated through the use of an analytical computer flux model developed specifically to predict the effectiveness of chemical containment by capping. The chemical flux model assesses the effectiveness of chemical containment of the cap, predicts the flux of contaminants through the cap, and estimates required cap thickness for chemical containment.

Based on habitat characteristics, Slough depth, and contaminant concentration, the Slough was divided into six segments as described in Section 3.6. Model results showed that a minimum initial cap thickness of 3 feet (for segments 1, 2, 5, and 6) and 4 feet (for segments 3 and 4) will effectively isolate measured concentrations of copper and zinc from the aquatic and marsh environment for at least 100 years. Horizontal groundwater seepage into the cap was also modeled. Model results indicated that the potential groundwater impacts to the cap from the west side of the Slough would be minimal. Therefore, the cap is predicted to function as a low permeability barrier to minimize horizontal migration of potentially contaminated shallow groundwater from the western side to the eastern side of the existing Slough.

The proposed end cap design (mouth) and creation of sandy beach environment are shown on Figure 3.6-10. The end cap transitions from a soft sediment cap to an AquaBlok liner or other suitable product protected by a sand cover.

Tide Gate Relocation

Presently, the existing tide gate allows fresh water to flow downstream during low tidal periods and prohibits tide water from flowing into the south Slough area during high tidal periods. As described in Section 3.7, a new tide gate structure serving the same function will be installed where the new alignment crosses the existing levee. A field exploration program conducted to assess the behavior of the underlying sediments for different tide gate location alternatives found that foundation conditions for the tide gate structure range from soft, highly compressible bay mud below the levee to bedrock at the base of Zinc Hill. Three locations along the eastern levee were evaluated during the design phase from a permitting, engineering, construction, and cost standpoint. It was concluded that locating the new gate structure at the eastern end of the levee on a bedrock foundation is the best alternative. The new tide gate structure will be designed as

an approximately 37-foot wide by 67-foot long rectangular reinforced concrete channel. The new tide gate design incorporates the existing tide gate structural design, and reuses all of the gates from the existing structure. Actuators will be installed to open and close the three flap gates in the relocated tide gate structure to facilitate ease of tide gate management.

Engineering Controls

In addition to the implementation of the remedial action at the project site, engineering controls will be installed to protect the new alignment and the cap from contamination. The potential pathways for contaminant migration at the project site are shown on Figure 3.5-1.

For this report, the engineering controls are presented in preliminary conceptual form. A more detailed engineering analysis of the surface water runoff and groundwater flows in the area is necessary prior to final design of the engineering controls.

The potential impact areas at the site (described in Section 3.8) will be further evaluated and the most appropriate engineering controls will be designed and implemented. Some of the engineering controls options that will be evaluated include:

- Pumping groundwater from the ore body and/or capping the ground surface over the ore body,
- Grading and/or capping of contaminated surface soils,
- Berming along the capped Slough,
- Relocation of storm water outfalls,
- Plugging or removal of unused utilities, and
- Improvements to former evaporation pond no. 2.

In addition, soil within portions of the former Peyton Slough paleo-channels and borrow pit may provide a preferential pathway for groundwater transport. Cut-off walls or impermeable barriers will be placed in locations shown on Figure 3.3-1.

Implementation Plan

The following major elements or activities are included in the implementation plan (Section 4.2) for the remedial alternative:

- *Site preparation and installation of tide gate and temporary road, trestle, or plate system* – this includes: species surveys, removal of habitat and/or trapping and species relocation, site clearing, and installation of temporary crossings. Concurrent to these preparation activities, the tide gate and temporary access roads, trestles, or plates will be installed.
- *Removal and disposal of AOC materials* - The total estimated maximum volume of AOC material to be removed, including dredge spoil piles and material in the south spread area, is approximately 42,600 CY and may include denuded areas, waters, uplands, and wetlands.
- *Excavation in the new alignment* - The new alignment will be excavated to a nominal elevation of -3.5 feet NGVD from the Carquinez Strait to approximately 200 feet north of Waterfront Road. The northern most 400 to 800 feet (in the mouth) of the new alignment will be excavated by widening the existing Peyton Slough No. 1 located to the east of the existing Slough. The maximum estimated in-situ volume of the materials to be excavated from the new alignment is 20,700 CY in the north section (within BCDC jurisdiction) and 4,600 CY in the south section, equivalent to a total in-situ maximum volume of 25,300 CY.

- *Transition to new alignment* - The diversion of flow to the new alignment will require a diversion dam to redirect the flows from the existing Slough into the newly excavated channel for conveyance of flows from upstream of the project area to Carquinez Strait. The transition will be implemented during high tide to further reduce impacts of the diversion. Once the transition is completed, the diversion dam will remain in place and will be used as a cofferdam to facilitate dewatering and capping of the existing Slough.
- *Dewatering excavated materials* - In the staging area, the material removed from the new alignment will be placed in staging cells where remaining free water will be continuously collected and transferred to storage or settling tanks. Decanted water will be tested and characterized for appropriate disposal and/or reuse.
- *Dewatering and capping the existing Slough* - Immediately following placement of the cofferdam at the tie-in, the existing tide gate will be closed and the existing Slough will be seined to remove and relocate fish to adjacent, species-specific habitat. Once seined, the existing Slough will be dewatered and the vegetative layer will be removed in order to place the cap.
- *Property grading and paving* - Site grading and paving activities will be conducted on the Rhodia property after remediation activities have been completed.

Schedule

A preliminary construction schedule is provided in Section 4.3 and Exhibit 4.3-1. The duration and implementation approach for the majority of these activities have been evaluated based on an engineering analysis of cut and fill quantities, material flow utilization, a realistic analysis of existing conditions, and previous construction experience. Because of the complexity of this project, the need to minimize wetland impacts, the size of the AOC, and the sequencing required for quality assurance, this project most likely requires a minimum two-season construction period.

An assumption has been made that an operating slough must be functioning continuously throughout the execution of the remedial action. Therefore, the new alignment must be fully operational before the process of closing the existing Slough may begin. *(Note: An implementation option that has the potential to reduce the overall project schedule is the installation of a bypass pipe that would allow for contemporaneously closing and capping the existing Slough while excavating the new alignment. If permitted, the bypass option may be implemented.)*

Wetland Mitigation

Impacts to wetlands, special status species, and their associated habitats as a result of this remediation project have been evaluated(. Avoidance, minimization and mitigation measures are proposed to address these impacts.

A wetland delineation was performed to define boundaries for the water, the wetland, and the upland. Multiple agencies exert jurisdiction over the waters and wetlands and wildlife that utilize these areas for habitat. Wetland mitigation is required to guarantee no net loss of wetland functions and values (USACE Sections 10 and 404), to compensate for the actual loss of threatened or endangered species habitat (USFWS Section 7), and to satisfy CEQA.

Wetland mitigation includes avoidance, minimization and mitigation, briefly described below and further detailed in Section 4.4:

- Avoidance - Steps will be taken in the project implementation to avoid impacts to special status species.
- Minimization - A team comprised of remedial engineers, hydrologists, and biologists have used an iterative process to develop a remediation design that will function well in terms of contamination containment and hydrology while minimizing impacts to wetlands and waters.
- Mitigation - The project will result in the temporal loss of wetlands and permanent loss of waters and uplands (i.e. dredge spoil piles). Although it is anticipated that the project will result in a net wetland gain of approximately 5.2 acres, mitigation measures are proposed to mitigate for these temporal and permanent losses including:

1. Disturbance to high quality areas will be mitigated for at a ratio of 3:1 (i.e. for 1 acre of wetland disturbed, 3 will be created). Low quality habitat will be mitigated for at a ratio of 2:1. In addition, a 10 foot wide strip of upland on the dredge spoil piles will be mitigated at a 2:1 ratio. The mitigation will be in the form of wetland to account for loss of salt marsh harvest mouse refugia.
2. Wetlands in the south spread area will be re-graded and enhanced such that they are capable of supporting a community of native wetland vegetation. All disturbed and re-graded wetlands will be planted with wetland species.
3. The hydraulic capacity of the Slough will be increased by adding 20 percent in width north of the levee, and by clearing obstructions between the railroad culvert and pipelines south of the levee.
4. The new alignment will have an increased sinuosity compared to its original design.
5. The new tide gate will have remotely actuated automated controls.
6. Rhodia Marsh will have enhanced circulation by adding 1st order channels.
7. A 10-year monitoring and adaptive management plan including invasive species management will be provided.

A formal mitigation plan will be prepared using the USACE's San Francisco District standard format as issued in *Habitat Mitigation and Monitoring Proposal Guidelines* (USACE, 1991). The detailed mitigation and monitoring plan will be submitted to the USACE after the project plans and specifications and agency consultations are completed.

Monitoring Objectives

As described in Section 4.5, the overall goal of the long-term monitoring is to evaluate the ongoing compliance with environmental quality goals in the vicinity of the new alignment. The long-term monitoring plan will evaluate whether copper and zinc concentrations in groundwater, surface water, sediment are stable after source removal. To meet that end, the long-term monitoring plan will focus in the following items:

- Evaluation of whether copper and zinc concentrations in groundwater, sediment, and surface water quality adjacent to the new alignment are stable.
- Evaluation of restoration and provisions for adaptive management of temporarily disturbed habitat.
- Provision of post-remedial controls to further protect the newly created habitat and ensure long-term effectiveness of the remedial action.

In addition to the long-term monitoring, post-remedial controls will be implemented to evaluate the effectiveness of the remedial action and to protect the engineered cap and the new alignment through a series of performance thresholds. The post-remedial controls will include institutional constraints as requested by the RWQCB.

Groundwater, Sediment and Water Quality Monitoring

The planned groundwater monitoring will be accomplished using a combination of existing monitoring wells west of the Slough and a network of new post-remediation monitor wells located between the existing Slough and the new alignment. Groundwater will be analyzed for copper, zinc, and pH.

Sediment monitoring will be accomplished by collecting 5 bottom sediment samples along the length of the new alignment. Sediment samples will be collected from the following locations: at the mouth of the new alignment, north of the tide gate, south of the tide gate, north of the Union Pacific Railroad culvert and south of the culvert. The sediment samples will be analyzed for copper, zinc, pH, grain size distribution, and moisture content.

Surface water quality in the new alignment will be monitored through the collection and analysis of 5 surface water samples collected concurrently with and at the same locations as the sediment quality samples. The water quality samples will be analyzed for copper, zinc and pH.

To establish a baseline of seasonal trends, the monitoring of groundwater, sediment and surface water will be conducted quarterly for the first five years and then annually thereafter. Once trends are established by the annual monitoring, a trend analysis of the monitoring results will be submitted to the RWQCB. If warranted by the trend analysis, a reduction or cessation of the monitoring may be proposed.

Post Remedial Controls

A dynamic verification monitoring program consisting of periodic visual field surveys will be implemented upon completion of the remedial construction. The dynamic monitoring program will set the performance objectives for future monitoring actions based on the results of previous monitoring events. The field survey program will include visual observations of the cap to monitor the cap conditions and consolidation. These surveys will be conducted in conjunction with wetlands restoration surveys and will be conducted by qualified personnel. Field visual surveys will be generated to indicate changes in conditions from the final construction ground surveys to qualitatively evaluate erosion and changes in the cap surface conditions.

Institutional Controls

Rhodia will develop and implement institutional constraints which will identify control methods to protect the cap and to regulate the use of the capped area to minimize cap disturbance.

A Covenant and Environmental Restriction will be recorded in the official records of Contra Costa County by Rhodia (and potentially the California State Lands Commission) containing the limitations to regulate the use of the remediated area. The Covenant and Environmental Restriction will be incorporated into each deed of any portion of the remediated area and may impose a variety of limitations and conditions, such as limiting access to the capped Slough, and/or restriction in drilling operations.

Environmental Setting

The Initial Study for the project concluded that impacts to black rails and their habitat would be avoided as possible and mitigated when unavoidable. Pre-construction rail surveys will be conducted and habitat removed to eliminate the potential for construction impacts to black rail. The Biological Assessment concluded that the project will likely have limited adverse effect on special-status fish. Delta smelt do not use the Slough and salmonid use is minimal. Sacramento splittail have used the Slough and thus all fish will be removed from the existing Slough and relocated nearby by a qualified fisheries biologist. Efforts will be made to relocate Mason's lilaeopsis, a small intertidal plant that will be removed during construction. Finally, the Biological Assessment concluded that the project would have the largest effect on the salt marsh harvest mouse. Therefore, the salt marsh harvest mice will be relocated from construction areas by live-trapping or by removal of their habitat prior to construction.

While the project will impact as much as 17 acres of wetlands, approximately 23 acres of wetlands will be created resulting in a net increase of approximately 5 acres of wetlands. The existing Slough will be basically replicated in the new alignment, with a slight increase in size to improve its function. Most of the areas impacted by construction will become wetland as a result of the final grade and re-vegetation activities.

Project Benefits

Beyond the direct remediation and restoration goals, the project is designed to restore a wetland environment that is more viable than it has been for nearly a century. More specifically, the project is designed to:

- Result in long-term wetland environment restoration and creation
- Avoid adverse impacts to plant and wildlife species, particularly state- and federally-listed species
- Restore wetland and uplands areas directly impacted by construction activities with native plants from local stock that are well-suited to the micro-environments on-site
- Minimize wetland impacts to the extent feasible without compromising the effectiveness of long-term isolation of contaminants and maintaining the function of Peyton Slough
- Monitor the construction to minimize wetland impacts
- Monitor revegeation for successful wetland recovery
- Aid in improved tidal flow to McNabney Marsh (upstream of the project site)
- Enhance the other wetlands adjacent to the Slough, just north of Waterfront Road

Beyond the design goals listed above, Rhodia is working with the resource agencies to meet their regulatory requirements and address concerns. Rhodia has specifically designed the project so that it:

- Increases the acreage of wetland habitat within the project site
- Enriches the quality of habitat along the new alignment
- Avoids sensitive habitats wherever possible

Other marsh improvements include:

- Improving circulation of the marshes south of the levee by adding first order channels, thereby enhancing currently degraded wetlands

- Reconnecting existing first order channels from the existing Peyton Slough to the new alignment
- Creating a first order channel from the existing Peyton Slough No. 1 to the new alignment,
- Providing additional plantings in disturbed areas to increase rate of restoration
- Providing funding for CCMVCD to undertake the removal of cattails and debris that block the Slough near the railroad crossing

Rhodia also recognizes the goals of the McNabney Marsh Technical Advisory Committee and intends to implement elements of the McNabney Marsh Enhancement Program in connection with the remediation project, such as:

- Designing the new alignment with an increase in the flow capacity compared to the existing Slough
- Installing actuators on the new tide gates to improve operations

Regulatory Status and Compliance with CEQA

In addition to the RWQCB which will act as lead agency under the California Environmental Quality Act (CEQA), the following agencies have jurisdictional authority over the project: San Francisco Bay Conservation and Development Commission, City of Martinez, California State Lands Commission, California Department of Fish and Game, and the U.S. Army Corps of Engineers, which includes consultation with the following three agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the State Historic Preservation Officer.

E-MAIL RECEIPT:
10/02/02

Priya Ganguli
California Regional Water Quality Control Board
SF Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: 30-day Review of Proposed Mitigated Declaration pursuant to CEQA for "Rhodia Martinez Peyton Slough Remediation Project", dated September 4, 2002

Dear Ms. Ganguli

This letter is to state and confirm Mt. Diablo Audubon's position as being in agreement with the letter from Mt. View Sanitary District, relative to the above subject. We are a member of the McNabney Marsh Oversight Committee, and as such have a deep interest in the working and health of the marsh. Without the implementation covered in MVSD's letter, the marsh is left severely restricted in fulfilling it's intended purpose of being a well rounded reserve for wildlife. Otherwise, it has the potential of becoming a hazard to the wildlife and it's whole ecosystem.

It is ,as a matter of observation and regret, that little or no attempt has been made to involve the railroad or the Contra Costa County/ City of Martinez in the proceedings of the Remediation Project. It would be our suggestion that, as a matter of record, a letter be sent to them, stating that their lack of maintenance of their culverts is adding to the difficulty in managing the marsh, and the possibility that future winter storms could render their tracks and/or road inoperable. Specifically, with regard to Waterfront Rd., the addition of a new culvert at the west end of the marsh, opposite the railroad culvert would greatly facilitate the flushing of the marsh and the management of it's water level and quality.

Sincerely, Mt. Diablo Audubon

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692 Contra Costa Blvd.
Pleasant Hill, Ca. 94523 925-798-0303

Bob Wisecarver Mt. Diablo Audubon Rep to McNabney Marsh Com.
337 Shady Glen Rd.
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State of California

CALIFORNIA REGIONAL WATER
PG
OCT 0 8 2002
QUALITY CONTROL BOARD

Memorandum

To : Ms. Priya Ganguli
Associate Engineering Geologist
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Via Fax: (510) 622-2460

Date: October 4, 2002

REVIEWED
Staff PG Date 10/4/02
to electronic submission

IMAGED
Staff PG Date 10/02

From : Robert W. Floerke, Regional Manager
Department of Fish and Game - Central Coast Region, Post Office Box 47, Yountville, California 94599

Subject : Rhodia Martinez Peyton Slough Remediation Project - Comments on Proposed Mitigated Negative Declaration SCH 2002092006

Department of Fish and Game (DFG) personnel have reviewed the September 2002 Mitigated Negative Declaration and Initial Study for the Peyton Marsh remediation project and are providing these comments in addition to those provided in DFG's April 23, 2002 memorandum.

We have been involved with investigation and remediation of the Rhodia site for many years and are satisfied that the proposed relocation of Peyton Slough and insitu encapsulation of contaminated sediments is the most logical and effective approach to restoring wetland values at this site. However, as the existing contaminated slough sediments, as well as the proposed new channel, are both located on State property adjoining the Rhodia Martinez facility, it is imperative that these areas be restored to viable open water and wetland habitat, supportive of all beneficial uses, as soon as possible; and that mitigation for the temporary loss of habitat value and use be accomplished in a timely manner.

The following specific comments and recommendations on the document and proposed mitigation are provided for your consideration.

p. IS-2 - Introduction - 3rd bullet - "Maintain existing functionality of Peyton Slough" - The functionality of Peyton Slough is currently severely impaired by the existence of the contaminants which has prevented full operation of recently constructed water control structures within the Slough and upstream wetland

habitats, i.e., McNabney Marsh. Thus, the project should not strive to maintain existing functionality, but rather restore functionality to this important wetland habitat.

p. IS-5 - **C.2 - Tide Gate Area** - 2nd ¶ - The tide gate replacement mentioned in this section was accomplished in 1998 by the Contra Costa Mosquito and Vector Control District on behalf of the McNabney Marsh Management Advisory Committee, with principal funding from the Shell Oil Spill Litigation Settlement Trustee Committee. Its purpose was to increase hydraulic capacity of the former structure, as well as enhance marsh management especially that related to restoration of incoming flow of salt water to help control unwanted rooted aquatic plants in McNabney Marsh. The tide gate, once completed, could not be operated as designed due to problematic hydraulic resuspension and mobilization of these contaminated sediments into upstream and downstream areas.

p. IS-14-17 - **D.5 Project Monitoring and Project Success** - Wetland Restoration Monitoring (p. IS-15) - This section appropriately includes monitoring for changes in hydrology, sediment/erosion and vegetation as a result of project construction. However, there is no proposed program to monitor changes in wetland fauna, especially fish and invertebrate use of the slough and tributary channels, or wildlife species of concern (e.g., salt marsh harvest mouse or black rail). Since these are the sensitive residents for which this project is designed to benefit, it would seem prudent to verify that the restored/enhanced habitat is in fact being used. To that end, we recommend that fish and invertebrate sampling be accomplished on a quarterly basis within all project areas during those years for which sampling is proposed. Further, we recommend that the vegetation monitoring transects for the south spread area continue across the slough to the western edge of the Rhodia Marsh to document anticipated benefits of enhanced water circulation to that marsh as well.

p. IS-16 1st ¶ - The area between the old and new alignment is proposed as a reference location for vegetation monitoring. This area is inappropriate as a reference as it is likely to be affected by changes in periods of inundation and/or drainage brought about by project construction. An unaffected area of wetland on Peyton Slough 3 or 4, located further to the east, would be preferable.

Performance Criteria - The proposed performance criteria, based on percent cover of obligate, native, wetland vegetation are much too liberal to provide the necessary assurances that wetland restoration is proceeding in an expeditious or appropriate manner. While it is acknowledged that disturbed areas upstream of the reconstructed tide gate may not re-vegetate as rapidly as those downstream on the State Lands property due to periodic inundation during operational trials of the tide gate, there should be no such impediment to site recovery of the North Peyton Marsh. Further, performance criteria percentages should be referenced to achievement of specific vegetative cover objectives or designs as set forth in a detailed restoration plan, or mapped by area (i.e., North Peyton Marsh, South Spread Area, Rhodia Marsh) with the goal of 100 percent wetland vegetative cover for all affected areas as quickly as possible, but in no case more than 10 years. The positive effect of increased abundance and density of pickleweed is specifically required to mitigate impacts to salt marsh harvest mouse, black rail, and California clapper rail. Thus, performance criteria should be specifically developed to address this need. Plantings of wetland vegetation, especially on areas to be restored to wetlands above the capped, former alignment of Peyton Slough, would seem prudent to accelerate recovery and help to impede the colonization of unwanted invasive species.

p. IS-17 - **Post-remedial Controls** - This section calls for a Covenant and Environmental Restriction to be recorded on the deeds of the "property owners." Is this deed restriction agreeable to the State Lands Commission, and how will it restrict the use or management of the property, especially its wetland habitat value, and its use by fish and wildlife in the future?

p. IS-37, 3rd ¶, 1st sentence - Are the wetland areas "potentially impacted by project components" including those adjacent or within the project area which will be temporarily drained or cut off from tidal action, but not otherwise physically disturbed, considered in these calculations?

p. IS-39 - **WET-4** - The proposed improvement in circulation in the Rhodia Marsh is very worthwhile and long overdue. However, it is unclear how much mitigative credit, either through added open water habitat of the ditch system, or from anticipated changes in water quality or enhanced plant and animal community structure, is being sought. What is the timeline for this enhancement?

WET-5 - Is this mitigation element meant to mitigate for the loss of open water habitat, or is it merely a means to re-establish connection within the marsh? What figure depicts these new channels, what is their collective surface area, and how will sensitive species be protected during their construction?

p. IS-40 - **WET-7** - This proposed mitigation element is appropriate, but will plant monitoring only be conducted in the spring? If herbicides are used, how will desirable plant species be protected?

p. IS-51 - **Altering Drainage Patterns** - It is unclear how installation of erosion control measures on or adjacent to the cap, mentioned in this section, will affect the success or timing of wetland restoration efforts in this area.

Figure 2 - **Areas of Concern** - Is the sediment data recently collected in the marsh between the old and new alignments included or acknowledged somewhere in this document, and why are these areas not included as areas of concern? The fact that some of the localized hotspots identified by these data will be removed during construction of the new alignment, and monitoring of the resultant effects on water quality are mitigative, the data and its significance needs to be discussed, nevertheless.

Figure 5 - Would not it be prudent to depict the paleo channels as having been filled with cinders and slag as an explanation of why a cap is necessary where new channels cross, or to explain why they cannot be restored to viable aquatic habitat?

The following recommendations should be included as mitigation measures to reduce project impacts to the required level of insignificance:

BIO-3 California red-legged frog

If California red-legged frogs are found on the site and exclusion fencing is used, a biological monitor must check the fence daily to ensure no animals are at the fence line. If any species of concern are found, the animal will be moved to an approved location and reported to the resource agencies within 24 hours.

BIO-5, California black rail

Clear vegetation from the construction zone outside the breeding season between August 1 and February 1. Clearing can be done mechanically or by hand. A biological monitor should haze (walk through the area) the area before starting work. If cleaner is proposed during the breeding season and if an active nest location is identified in the project area, a 250-foot buffer will be established between February 1 and August 1.

BIO-7, salt marsh yellow throat

If a nest, containing eggs or fledglings, is identified, a minimum 100-foot buffer will be established until young have fully fledged.

Suisun song sparrow:

BIO-7 mitigation measures should be applied to this species as well.

Western burrowing owl:

Preconstruction surveys will be completed according to DFG guidelines. If burrowing owls are present in the project area, avoidance and mitigation will be accomplished according to DFG guidelines with written approval from DFG.

If you have any questions regarding these comments and recommendations, please contact Mike Rugg, Water Quality Biologist, at (707) 944-5523; Janice Gan, Environmental Scientist, at (209) 835-6910; or Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

cc: State Clearinghouse

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER
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GRAY DAVIS, *Governor*

OCT 0 8 2002
QUALITY CONTROL BOARD

CALIFORNIA STATE LANDS COMMISSION
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REVIEWED
Staff PG Date 10/02

IMAGED
Staff PG Date 10/02

October 4, 2002

CSLC File Ref: W30143
RWQCB File Ref: 2119.1045
SCH # 2002092006

Ms. Priya Ganguli
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Ganguli,

Thank you for the opportunity to review and comment on the proposed Mitigated Negative Declaration (MND) and Initial Study for the Rhodia Martinez Peyton Slough Remediation Project (SCH #2002092006), Contra Costa County, California. We are appreciative of the on-going communication and agency outreach process that the Regional Board staff, Rhodia and URS Consultants have undertaken to address the potential environmental consequences of the proposed project. Based on our review, we offer the following comments.

CSLC Jurisdiction

As you are aware, the proposed remediation project will involve State-owned lands under the jurisdiction of the California State Lands Commission (CSLC). The CSLC is entrusted to oversee the Public Trust on sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce, navigation, fisheries, open space, recreation, or other recognized Public Trust purposes. A lease from the Commission is required for any portion of a project extending onto State-owned lands, which are under its exclusive jurisdiction. CSLC received from Rhodia an application to lease such lands for the proposed project on June 3, 2002, which an incomplete letter was sent to Rhodia dated July 2, 2002. Rhodia's response to our incomplete letter has not been received to date. Once Rhodia responds to our incomplete letter and provides staff all requested information, CSLC staff can begin processing the application for the proposed project.

Environmental Comments

Page IS-2 Introduction. The bulleted list of Project Objectives in the MND is not as detailed or comprehensive as the list of Objectives on page 2-7 of the September 17, 2002 Remedial Design Report (RDR). Please augment the Objectives in the MND with the specific wording from the RDR.

Page IS-15 Monitoring for Contaminants of Concern. The second paragraph under this topic needs to be revised to reflect the more extensive quarterly monitoring program that was discussed at the meeting on September 27, 2002. This would include a program of surface water, groundwater and sediment sampling, including submittal of quarterly self-monitoring data and preparation and distribution of an annual report containing data, findings, conclusions and recommendations. We request that current surface water and sediment samples be obtained for the four locations and in the Carquinez Strait at the mouth of the new alignment prior to start of any disturbance of the site. Also, that the monitoring program include surface water samples at the point of up-stream discharges into the new alignment such as from Cal trans or other properties that may add chemical loadings to the system (the intent being to separate project from non-project inputs).

As discussed during the September 27, 2002 meeting, please include in the Section 401 Certification specific numeric and narrative water quality objectives and criteria from the Basin Plan and California Toxics Rule for surface receiving waters (and/or from other data or studies for sediments) at the mouth of the new alignment, within the new alignment and at the up-stream input to the new alignment that are protective of beneficial uses and will carry out the Project Objectives mentioned above. The intent of this information is to provide a quantitative benchmark against which to measure the data obtained during the monitoring program.

Page IS-16 Performance Criteria. We agree with the revisions suggested by the Department of Fish & Game at the September 27, 2002 meeting, and request that they be reflected in the adopted monitoring program.

Pages 45-47 Sediments Exceeding ER-M. Recent soil testing in the vicinity of the new alignment indicates that the soils contain copper and zinc at levels exceeding the ER-M. As a result, such area will need to be classified as Areas of Concern (AOC) if disturbed by construction. As discussed in the meeting on September 27, 2002, all such sediments and soils associated with the construction of the new alignment will need to be remediated or disposed of in accordance with the second paragraph on page IS-46.

Page IS-33 Mason's lilaeopsis. Mason's lilaeopsis was found in four locations within the project area. Please provide the approximate population size of each location, extent of impact to each of these locations, and approximate size of mats that would need to be relocated. Also incorporate into mitigation BIO-6 avoidance measures where locations of Mason's lilaeopsis would not be impacted by the project.

Page IS-36 Delta tule-pea. Existing Delta tule-pea present within the project area will be marked with construction fencing and avoided during construction activities. Since this sensitive plant would be avoided, is it a necessary mitigation measure to harvest its seed and plant in the restored areas? If this species would be used for revegetation, planted Delta tule-pea should be included in the habitat monitoring program as with BIO-6 to document its successful or failed establishment.

Finally, we note that the bottom/sediment samples for copper and zinc shown at the site just north of Waterman Road on Figures 3.2-2, 3.2-4 and 3.6-3 in the RDR all exceed the ER-M and may be a source of future contamination of the new alignment. Please address this issue and eliminate any possible source of such contamination.

Again, thank you for the opportunity to comment on the MND. Should you have any questions about or desire clarification on these comments, please contact me at (916) 574-1814.

Sincerely,

Stephen L. Jenkins

Stephen Jenkins, Assistant Chief
Division of Environmental Planning
And Management

CC: Nanci Smith
Eric Gillies
Jonathan Clark

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT

155 MASON CIRCLE ■CONCORD, CA 94520■(925) 685-9301 ■FAX: 685-0266

October 4, 2002

Ms. Priya Ganguli
S.F. Regional Water Quality Control Board
1515 Clay St, Suite 1400
Oakland, CA 94612

SUBJECT: RHODIA MARTINEZ PEYTON SLOUGH REMEDIATION PROJECT – PROPOSED MITIGATED NEGATIVE DECLARATION

Dear Ms. Ganguli,

Contra Costa Mosquito & Vector Control District (District) staff have reviewed the draft Mitigated Negative Declaration for the Rhodia Martinez Peyton Slough Remediation Project and wish to incorporate the comments that follow into the public record. Initially, we want to thank the Regional Board, Rhodia, and their consultants for the effort they have all made to cooperate with the District's specific interests and with the Shell Marsh Restoration Project that the District has long supported and that is taking place largely in the same area as the Rhodia Remediation. It has been a challenge to satisfy the needs and desires of the large number of involved parties, and the documents reviewed here reflect well a general consensus on how best to clean up and then restore and manage the Peyton Slough marshlands.

1. The District's proper name is the Contra Costa Mosquito & Vector Control District, not the Contra Costa County Mosquito & Vector Control District, although our jurisdiction is essentially all of Contra Costa County.

2. The District is committed to cooperating with Rhodia and the RWQCB (p IS-64), as well as with the other members of the McNabney Marsh Management Committee (including the California Dept. of Fish and Game, the Mt. View Sanitary District, Audubon Society, etc.) in the long-term improvement of the site, as documented in the Shell Marsh Restoration Project CEQA documents and the Shell Marsh Management Plan. However, these documents recognize that there are multiple goals and objectives to the Restoration Plan, including protection of the public from flooding and from mosquito-borne diseases, as well as the improvement of wetlands habitats. Thus, the operations of the tide gates designed and controlled by the District must necessarily reflect a range of management requirements, some of which at times may pose challenges to the ecological outcomes envisioned in the IS and the Mitigation Monitoring and Reporting Plan. The District believes that the mitigation proposals included in the Rhodia documents represent a well-reasoned design that will most likely result in significant habitat mitigation regardless of the District's reasonable gate operations, but the District cannot accept any liability for any failure of Rhodia's project to achieve its remediation or mitigation requirements.

3. The Initial Study (IS) indicates that routine maintenance dredging of Peyton Slough occurred from approximately 1927 to the early 1980's (p IS-3). While the initial date is correct, the historical review by JRP Historical Consulting Services that is cited by the IS indicates that routine dredging continued only through the 1949-50 fiscal year in the project area, and that more than fifty years have passed since Peyton Slough north of the levee has been dredged. In contrast, the reach between the levee and the railroad culvert was dredged in 1989 following the Shell Oil refinery spill onto the site.

District staff is impressed with the obvious efforts you have made to address our concerns, and we look forward to a continued cooperative relationship as the project moves forward. If you have any questions, please feel free to call me at (925) 685-9301 x107.

Sincerely,

Karl Malamud-Roam, Ph.D.
Environmental Projects Manager

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Department of Toxic Substances Control

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

September 18, 2002

Priya Ganguli
Regional Water Quality Control Board
1515 Clay Street
Oakland, California 94612

Dear Ms. Ganguli:

Thank you for the opportunity to comment on the proposed Mitigated Negative Declaration for the Peyton Slough Remediation Project [SCH#2002092006]. The proposed project is designed to remediate contaminated sediments in and adjacent to Peyton Slough of the Peyton Slough Marsh system in Contra Costa County, California. Elevated levels of copper and zinc have been found in specific areas of the Peyton Slough Marsh system. The sediment concentrations pose a risk to ecological receptors within the area. To address this issue, the project proposes to remove the contaminated sediments, excavate and dredge a new alignment for the Slough and reroute the water flow, de-water and cap the existing Slough, and implement a restoration plan which would revegetate the impacted wetlands and new cap.

As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Resource Agency, DTSC is submitting comments to ensure that the environmental documentation prepared for this project to address the California Environmental Quality Act (CEQA) adequately addresses any required remediation activities which may be required to address any hazardous substances release.

The proposed Mitigated Negative Declaration and Initial Study do not adequately address all issues involved with the removal, transportation, and disposal of hazardous materials. We recommend that a soil management plan be developed to address issues and concerns related to remediation of the contaminated soil. The Soil Management Plan, at minimum, should address the following comments:

- DTSC recommends additional sampling be conducted to determine if the soil is classified as RCRA or non-RCRA waste. This information will help to identify the appropriate treatment, storage, and disposal methods.

- Soil that meets the definition of a Hazardous Waste must be handled in compliance with California Health and Safety Code section 25123.3(b) and Division 4.5, Title 22, of the California Code of Regulations.

- Please clarify how the project will identify whether soils have been removed to the appropriate cleanup levels.

Please contact Sarah Stenehjem of my staff at (510) 540-3828 if you have any questions. Thank you in advance for your cooperation in this matter.

Sincerely,

Barbara J. Cook, P.E., Chief
Northern California - Coastal Cleanup
Operations Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, California 95814

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

MT. VIEW SANITARY DISTRICT
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September 30, 2002

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Staff PG Date 10/02

Priya Ganguli
California Regional Water Quality Control Board
SF Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: 30-day Review of Proposed Mitigated Declaration pursuant to CEQA for Rhodia Martinez Peyton Slough Remediation Project", dated September 4, 2002

Dear Ms. Ganguli:

This letter is in response to the above public notice. As you are aware, the Mt. View Sanitary District is obligated by its NPDES discharge permit to maintain and manage the Moorhen Marsh (marsh constructed by the District) and McNabney Marsh. It has worked cooperatively with the other agencies that have interests in the McNabney Marsh, particularly the California Department of Fish and Game, the East Bay Regional Park District and the Contra Costa Mosquito and Vector Control District. Management of the water regime through Peyton Slough and the tide gate has always been a key tool for habitat management and mosquito control. Therefore, the District has a keen interest in projects that will help or hinder management of the water system.

The tide gate on Peyton Slough was designed as a flexible management tool to control flow of the tides into and out of McNabney Marsh. The goal of control was to provide management over the tidal range in McNabney marsh, to allow periodic saltwater intrusion into McNabney Marsh to control cattail spread, to provide mixing and aeration in Peyton Slough, to provide water level fluctuation in McNabney Marsh and to bring in sediments. The gate was designed with Nekton gates, a gate that can be adjusted to allow a certain portion of the tidal range in but close during undesirable high phases of a tide. The risk of sweeping contaminated sediment along with tidal flow into McNabney Marsh has restricted use of the tide gates and effectively negated its design intent.

The static situation governing the use of the tide gate and the restricted water exchange through Peyton Slough and McNabney Marsh has produced the following situations which should be remedied in the Rhodia Peyton Slough Remediation plan:

- The near stagnant water level regime has allowed rampant growth of cattails in McNabney Marsh
- The District has resorted to herbicide treatments to control the rampant spread of the cattails.
- Nesting refuge has become sparse due to the high water levels.
- Low dissolve oxygen and anoxic conditions in the area o f Peyton Slough upstream of the culvert under the railroad crossing have caused occasional fish kills upstream of the railroad culvert.
- The District has had to plan and budget for an aeration system in that portion of Peyton Slough affected by the low dissolved oxygen concentrations.

MT. VIEW SANITARY DISTRICT
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MARTINEZ, CA 94553
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- Construction of planned nesting islands and mounds is hindered by lack of knowledge of the real water level range.

The following remedies, in addition to the mitigation already proposed in the public notice, for the above situations should be included in the remediation plan for Peyton Slough:

- The District should be reimbursed for its expenditures for labor and chemicals used to control cattails.
- The District should be reimbursed for its expenditures for planning and implementing an aeration system.
- The gates on the new tide gate should have electric actuators that can be controlled from a station remote from the site and convenient to the agency that has ultimate responsibility for controlling water flow.
- The new northern reach for the Peyton Slough channel should be designed for optimum advantage for the management of the water level regime in McNabney Marsh.
- All avenues for removing the upstream restrictions to flow—the railroad culvert and shallow pipelines—should be explored.
- If the above restrictions cannot be removed during the present remediation project, then funds should be set aside that will contribute to any future opportunity to remove the restrictions.

Please call me at 925-228-5635 or Dick Bogaert at 925 228-5635 ext. 16 (or dbogaert@mvsd.org) if you have any questions.

Sincerely,

Mt. View Sanitary District

David R. Contreras

David R. Contreras
District Manager

Cc: Mike Rugg, Dept. of Fish and Game, Region 3, 7329 Silverado Trail, Napa CA 94558
Brad Olsen, East Bay Regional Park District, 2950 Peralta Court, P.O. Box 5381, Oakland, CA 94605-0381
Karl Malamud-Roam, Contra Costa Mosquito and Vector Control District, 155 Mason Circle, Concord, CA 94520
Betty Silva, State Lands Commission, 725 B Alfred Nobel Drive, Hercules, CA 94547
Mary Brown, Rhodia Inc, 259 Plains Road, CN7500, Cranbury, NJ 08512
Ms. Molly Martindale, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, San Francisco, CA 94105-2197
Bob Wisecarver, Mt. Diablo Audubon Society, 337 Shady Glen Walnut Creek, CA 94596

DEPARTMENT OF TRANSPORTATION
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SCH 2002092006

Ms. Priya Ganguli
Regional Water Quality Control Board
1515 Clay Street
Martinez, CA 94612

Dear Ms. Priya:

Peyton Slough Remediation Project - Mitigated Negative Declaration

Thank you for including the California Department of Transportation in the environmental review process for the proposed project. We have examined the above-referenced document and are satisfied that the project will not have a significant impact to State highway facilities.

Should you require further information or have any questions regarding this letter, please call Tom Holley, of my staff at (510) 622-8706.

Sincerely,

for Timothy C. Sable
District Branch Chief
IGR/CEQA

c: Katie Shulte Joung (State Clearinghouse)

RESPONSE TO COMMENTS ON THE SEPTEMBER 4, 2002 MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY FOR THE RHODIA MARTINEZ PEYTON SLOUGH REMEDIATION PROJECT

INTRODUCTION

The Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) would like to thank the many involved parties that have devoted their time and effort to review and provide input on the Peyton Slough Remediation Project. As the lead agency under the California Environmental Quality Act (CEQA), RWQCB staff appreciates the efforts that the involved parties have given to the consultation process by attending meetings and submitting written comments on the Proposed Mitigated Negative Declaration and supporting Initial Study (MND/IS). The suggestions and concerns discussed over the last several months have been very helpful to RWQCB staff during their review of the project proposed by Rhodia Inc. (Rhodia).

Rhodia, in response to RWQCB Site Cleanup Order 01-094, has proposed to remediate contamination in a wetland environment by constructing a new channel alignment, removing contaminated dredge spoil piles located immediately adjacent to the existing Peyton Slough, and capping the existing Slough in-situ. The proposed mitigation package would result in increased Slough hydraulic capacity and sinuosity, enhanced wetland habitat through improving circulation and soil quality, and providing additional slough habitat via first order channels.

Several agencies, including the California Department of Fish and Game (CDFG), California Department of Toxic Substances Control (DTSC), California State Lands Commission (CSLC), Contra Costa Mosquito & Vector Control District (CCMVCD), Mountain View Sanitary District (MVSD), and the Mt. Diablo Audubon Society have provided written comments on the proposed MND/IS. RWQCB staff have reviewed and considered the comments received. A response to each comment is provided below, organized by agency in alphabetical order.

A. AUDUBON SOCIETY

Comment letter received from Bob Wisecarver, Biologist, on October 4, 2002.

Comment A1: ***This letter is to state and confirm Mt. Diablo Audubon's position as being in agreement with the letter from Mt. View Sanitary District, relative to the above subject. We are a member of the McNabney Marsh Oversight Committee, and as such have a deep interest in the working and health of the marsh. Without the implementation covered in MVSD's letter, the marsh is left severely restricted in fulfilling it's intended purpose of being a well rounded reserve for wildlife. Otherwise, it has the potential of becoming a hazard to the wildlife and it's whole ecosystem.***

Response: RWQCB staff thanks the Audubon Society for their continued interest and support of the Peyton Slough Remediation project.

Comment A2: ***It is, as a matter of observation and regret, that little or no attempt has been made to involve the railroad or the Contra Costa County/ City of Martinez in the proceedings of the Remediation Project. It would be our suggestion that, as a matter of record, a letter be sent to them, stating that their lack of maintenance of their culverts is adding to the difficulty in managing the marsh, and the possibility that future winter storms could render their tracks and/or road inoperable. Specifically, with regard to Waterfront Rd., the addition of a new culvert at the west end of the marsh, opposite the railroad culvert would greatly facilitate the flushing of the marsh and the management of it's water level and quality.***

Response: RWQCB staff has made a strong effort to involve representatives from both Contra Costa County and the City of Martinez in the Peyton Slough Remediation Project. A representative of the City attended the first major involved party meeting. We have included representatives from both agencies in all document distribution mailings (including hand delivering some documents), invited them to all major involved party meetings, and have had phone conversations with representatives from each agency.

B. CALIFORNIA DEPARTMENT OF FISH AND GAME

Comment letter received from Michael Rugg, Water Quality Biologist, on April 23, 2002.

Comment B1: ***We have been involved with investigation and remediation of the Rhodia site for many years and are satisfied that the proposed relocation of Peyton Slough and insitu encapsulation of contaminated sediments is the most logical and effective approach to restoring wetland values at this site. However, as the existing contaminated slough sediments, as well as the proposed new channel, are both located on State property adjoining the Rhodia Martinez facility, it is imperative that these areas be restored to viable open water and wetland habitat, supportive of all beneficial uses, as soon as possible; and that mitigation for the temporary loss of habitat value and use be accomplished in a timely manner.***

Response: RWQCB staff would like to thank the DFG for its continued support and understanding of this complex remediation and restoration project. RWQCB staff understand that DFG is in agreement with the proposed schedule of activities to achieve remediation and restoration in a timely manner.

Comment B2: ***p. IS-2 - Introduction - 3rd bullet - Maintain existing functionality of Peyton Slough@ - The functionality of Peyton Slough is currently severely impaired by the existence of the contaminants which has prevented full operation of recently constructed water control structures within the Slough and upstream wetland habitats, i.e., McNabney Marsh. Thus, the project should not***

strive to maintain existing functionality, but rather restore functionality to this important wetland habitat.

Response: RWQCB staff agrees that the functionality of habitat in Peyton Slough is impaired by contamination. The intent of the statement in the IS refers simply to hydraulic functionality of the Slough which will be replaced and enhanced in the new alignment. Please also refer to the response to comments F1 and F2.

Comment B3: ***C.2 - Tide Gate Area - 2nd & - The tide gate replacement mentioned in this section was accomplished in 1998 by the Contra Costa Mosquito and Vector Control District on behalf of the McNabney Marsh Management Advisory Committee, with principal funding from the Shell Oil Spill Litigation Settlement Trustee Committee. Its purpose was to increase hydraulic capacity of the former structure, as well as enhance marsh management especially that related to restoration of incoming flow of salt water to help control unwanted rooted aquatic plants in McNabney Marsh. The tide gate, once completed, could not be operated as designed due to problematic hydraulic resuspension and mobilization of these contaminated sediments into upstream and downstream areas.***

Response: Comment noted. Please refer to the responses to comments F1 and F2.

Comment B4: ***D.5 Project Monitoring and Project Success - Wetland Restoration Monitoring (p. IS-15) - This section appropriately includes monitoring for changes in hydrology, sediment/erosion and vegetation as a result of project construction. However, there is no proposed program to monitor changes in wetland fauna, especially fish and invertebrate use of the slough and tributary channels, or wildlife species of concern (e.g., salt marsh harvest mouse or black rail). Since these are the sensitive residents for which this project is designed to benefit, it would seem prudent to verify that the restored/enhanced habitat is in fact being used. To that end, we recommend that fish and invertebrate sampling be accomplished on a quarterly basis within all project areas during those years for which sampling is proposed. Further, we recommend that the vegetation monitoring transects for the south spread area continue across the slough to the western edge of the Rhodia Marsh to document anticipated benefits of enhanced water circulation to that marsh as well.***

Response: RWQCB requires quarterly surface water and sediment monitoring at five locations in the new alignment, as well as quarterly groundwater monitoring at eight well locations in addition to the existing onsite groundwater self-monitoring program. The results of the monitoring program will be compared to the Basin Plan, and other regulatory criteria depending on the media. Those criteria are based on and protective of sensitive species, and serve to identify potential risks to habitat and species in the new alignment. The adaptive management plan will allow for further action if the water and sediment quality criteria have been significantly negatively impacted. Other than vegetation monitoring during the

restoration period, no additional monitoring will be required for the Peyton Slough Remediation Project. Rhodia will extend the vegetation monitoring transects to the west in Rhodia Marsh.

Comment B5: ***p. IS-16 1st & - The area between the old and new alignment is proposed as a reference location for vegetation monitoring. This area is inappropriate as a reference as it is likely to be affected by changes in periods of inundation and/or drainage brought about by project construction. An unaffected area of wetland on Peyton Slough 3 or 4, located further to the east, would be preferable.***

Performance Criteria - The proposed performance criteria, based on percent cover of obligate, native, wetland vegetation are much too liberal to provide the necessary assurances that wetland restoration is proceeding in an expeditious or appropriate manner. While it is acknowledged that disturbed areas upstream of the reconstructed tide gate may not re-vegetate as rapidly as those downstream on the State Lands property due to periodic inundation during operational trials of the tide gate, there should be no such impediment to site recovery of the North Peyton Marsh. Further, performance criteria percentages should be referenced to achievement of specific vegetative cover objectives or designs as set forth in a detailed restoration plan, or mapped by area (i.e., North Peyton Marsh, South Spread Area, Rhodia Marsh) with the goal of 100 percent wetland vegetative cover for all affected areas as quickly as possible, but in no case more than 10 years. The positive effect of increased abundance and density of pickleweed is specifically required to mitigate impacts to salt marsh harvest mouse, black rail, and California clapper rail. Thus, performance criteria should be specifically developed to address this need. Plantings of wetland vegetation, especially on areas to be restored to wetlands above the capped, former alignment of Peyton Slough, would seem prudent to accelerate recovery and help to impede the colonization of unwanted invasive species.

Response: The purpose of reference areas is to provide comparative data on the vegetation community in low and high quality salt marsh harvest mouse habitat. The salt marsh harvest mouse habitat that is being impacted in the project area is best represented by the area between Peyton Slough and the new alignment. This area may evolve as a result of tide gate operation, removal of the dredged spoil piles (opening the marsh plain to additional potential for sheet flow) and or ambient factors not related to the project. Using it as a reference location provides rational comparative data that represent the low and high quality salt marsh harvest mouse habitat that will be possible on the site.

The performance criteria need flexibility to account for the changes that will result from alternative tide gate operation scenarios and the changes in settlement on the cap. After the first two start-up years, the need for planting will be assessed and adaptive management decisions will be made. The goal of replacing the high and low quality salt marsh harvest mouse habitat will be met within the total project

area. The goal of creating a maximum of 22.2 acres of wetland as quickly as possible is clear. The portion of the total area that is not required as salt marsh harvest mouse habitat mitigation may be restored to wetland, salt panne, or shallow pond. The project seeks to promote pickleweed growth; however, it can not be assumed that the abundance and density of pickleweed will increase beyond existing conditions. This further emphasizes the need to place the reference sites between Peyton Slough and the new alignment.

Comment B6: ***p. IS-17 - Post-remedial Controls - This section calls for a Covenant and Environmental Restriction to be recorded on the deeds of the "property owners." Is this deed restriction agreeable to the State Lands Commission, and how will it restrict the use or management of the property, especially its wetland habitat value, and its use by fish and wildlife in the future?***

Response: RWWQCB requires a deed restriction, as a matter of course, when contaminants are capped in place. The purpose of the Covenant and Environmental Restriction Plan (CERP) is to protect the cap integrity and restrict certain land uses on the area covered by the CERP.

Comment B7: ***p. IS-37, 3rd &, 1st sentence - Are the wetland areas potentially impacted by project components, including those adjacent or within the project area which will be temporarily drained or cut off from tidal action, but not otherwise physically disturbed, considered in these calculations?***

Response: Current hydrological conditions, tidal or seasonal, will continue on undisturbed wetland areas, and therefore, are not included in the calculation of acreage requiring mitigation. Although surface water hydrology may be temporarily impacted, sheet flow and the perched water table will be adequate to sustain marsh functions.

Comment B8: ***p. IS-39 - WET-4 - The proposed improvement in circulation in the Rhodia Marsh is very worthwhile and long overdue. However, it is unclear how much mitigative credit, either through added open water habitat of the ditch system, or from anticipated changes in water quality or enhanced plant and animal community structure, is being sought. What is the timeline for this enhancement?***

Response: There are 1,000 linear feet of new channel being constructed in the Rhodia Marsh, as shown on Figure 11. These channels are scheduled to be constructed in the construction season 2. The channel construction is proposed as mitigation for impacts to water quality and fish habitat, and are expected to enhance the wetland habitat in Rhodia Marsh.

Comment B9: ***WET-5 - Is this mitigation element meant to mitigate for the loss of open water habitat, or is it merely a means to re-establish connection within the marsh? What figure depicts these new channels, what is their collective surface area, and how will sensitive species be protected during their construction?***

Response: The new channels do mitigate for loss of open water habitat, but also were designed to improve circulation in the marsh and enhance fishery habitat. Figure 11 depicts the new channel locations. There is a total of 2,400 linear feet of channel approximately 3 to 5 feet wide. Sensitive species will be protected prior to construction north of the levee by removing habitat.

Comment B10: ***p. IS-40 - WET-7 - This proposed mitigation element is appropriate, but will plant monitoring only be conducted in the spring? If herbicides are used, how will desirable plant species be protected?***

Response: Monitoring for non-native plant emergence will be conducted in the spring and plants will be spot sprayed with herbicide approved for use in an aquatic environment. Desirable plant species will be protected because they will not be sprayed. The technician spraying the plants will only spray the targeted plants, i.e. Lepidium latifolium, which is very easily identifiable. Spraying will be done twice annually, for the first three years. Both spraying events may be in the spring or one may be in the spring and one in the fall depending on the adaptive management decisions made each year.

Comment B11: ***p. IS-51 - Altering Drainage Patterns - It is unclear how installation of erosion control measures on or adjacent to the cap, mentioned in this section, will affect the success or timing of wetland restoration efforts in this area.***

Response: The placement of erosion control measures will not affect the success or timing of wetland restoration efforts. Erosion control measures on or adjacent to the cap, such as hydromulching, will help retain soils placed during construction that will be subject to tidal action for the first time. This will assist in the establishment of marsh plain vegetation because it will provide a stable substrate for seed germination. On cap segments 3 and 4, which will become uplands, hydroseeding will be used to keep clean soil from eroding the top of the cap. The erosion control measures will not affect the timing of wetland restoration, but rather are intended to protect the new fill material from damage and potentially difficulty in achieving restoration goals.

Comment B12: ***Figure 2 - Areas of Concern - Is the sediment data recently collected in the marsh between the old and new alignments included or acknowledged somewhere in this document, and why are these areas not included as areas of concern? The fact that some of the localized hotspots identified by these data will be removed during construction of the new alignment, and monitoring of the resultant effects on water quality are mitigative, the data and its significance needs to be discussed, nevertheless.***

Response: Please see response to comment C5.

Comment B13: ***Figure 5 - Would not it be prudent to depict the paleo channels as having been filled with cinders and slag as an explanation of why a cap is necessary where new channels cross, or to explain why they cannot be restored to viable aquatic habitat?***

Response: RWQCB staff would like to clarify the purpose for the engineered cap and the cutoff walls at the intersection of the paleo-channels. The purpose for the engineered cap as a remedial action is to isolate the contaminants in the existing Slough. The cutoff walls are an abundance of care measure that further protects the engineered cap. The are no locations where the intersection of the existing Slough and the paleo-channel will not be restored to wetlands, except where the entire cap segment will become uplands (segments 3 and 4 of the cap). Segments 3 and 4 of the cap are located between two upland areas are necessarily will become uplands.

Comment B14: ***The following recommendations should be included as mitigation measures to reduce project impacts to the required level of insignificance:***

BIO-3 California red-legged frog

If California red-legged frogs are found on the site and exclusion fencing is used, a biological monitor must check the fence daily to ensure no animals are at the fence line. If any species of concern are found, the animal will be moved to an approved location and reported to the resource agencies within 24 hours.

BIO-5, California black rail

Clear vegetation from the construction zone outside the breeding season between August 1 and February 1. Clearing can be done mechanically or by hand. A biological monitor should haze (walk through the area) the area before starting work. If cleaner is proposed during the breeding season and if an active nest location is identified in the project area, a 250-foot buffer will be established between February 1 and August 1.

BIO-[6], salt marsh yellow throat

If a nest, containing eggs or fledglings, is identified, a minimum 100-foot buffer will be established until young have fully fledged.

Suisun song sparrow:

BIO-7 mitigation measures should be applied to this species as well.

Western burrowing owl:

Preconstruction surveys will be completed according to DFG guidelines. If burrowing owls are present in the project area, avoidance and mitigation will be accomplished according to DFG guidelines with written approval from DFG?

Response: BIO-3. Comments noted. Rhodia has included the fence monitoring for the red-legged frog.

BIO-5. Black rail mitigation will be included in the updated Mitigated Negative Declaration.

BIO- 6. A 100 foot buffer around active nests with eggs or fledglings of salt marsh yellowthroat or Suisun song sparrow will be included.

Burrowing owl. Comment noted. Burrowing owl pre-construction surveys will be performed according to Department of Fish and Game guidelines.

C. CALIFORNIA STATE LANDS COMMISSION

Comments received from Steve Jenkins, Division of Environmental Planning and Management, on September 26, 2002.

Comment C1: ***CSLC Jurisdiction - As you are aware, the proposed remediation project will involve State-owned lands under the jurisdiction of the California State Lands Commission (CSLC). The CSLC is entrusted to oversee the Public Trust on sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce, navigation, fisheries, open space, recreation, or other recognized Public Trust purposes. A lease from the Commission is required for any portion of a project extending onto State-owned lands, which are under its exclusive jurisdiction. CSLC received from Rhodia an application to lease such lands for the proposed project on June 3, 2002, which an incomplete letter was sent to Rhodia dated July 2, 2002. Rhodia's response to our incomplete letter has not been received to date. Once Rhodia responds to our incomplete letter and provides staff all requested information, CSLC staff can begin processing the application for the proposed project.***

Response: Comment duly noted. RWQCB staff understands that the State-owned lands requires a complete application package in order to process the application for the proposed project.

Comment C2: ***Environmental Comments - Page IS-2 Introduction. The bulleted list of Project Objectives in the MND is not as detailed or comprehensive as the list of Objectives on page 2-7 of the September 17, 2002 Remedial Design Report***

(RDR). Please augment the Objectives in the MND with the specific wording from the RDR.

Response: Comment noted. RWQCB staff will augment the summary of objectives on pg. IS-2 with the detailed list of project objectives in the RDR – Revision 1 (URS 2002).

Comment C3: ***Environmental Comments - Page IS-15 Monitoring for Contaminants of Concern. The second paragraph under this topic needs to be revised to reflect the more extensive quarterly monitoring program that was discussed at the meeting on September 27, 2002. This would include a program of surface water, groundwater and sediment sampling, including submittal of quarterly self-monitoring data and preparation and distribution of an annual report containing data, findings, conclusions and recommendations. We request that current surface water and sediment samples be obtained for the four locations and in the Carquinez Strait at the mouth of the new alignment prior to start of any disturbance of the site. Also, that the monitoring program include surface water samples at the point of up-stream discharges into the new alignment such as from Cal trans or other properties that may add chemical loadings to the system (the intent being to separate project from non-project inputs).***

Response: Comment noted. RWQCB will updated the second paragraph under the heading Monitoring for Contaminants of Concern to include the more extensive monitoring program. These requirements will also be reflected in the Mitigation Monitoring and Reporting Plan, as well as in the 401 Water Quality Certification requirements.

RWQCB staff recognize that there will be various point and non-point source discharges into the new alignment, including Caltrans storm water, MVSD treated effluent, water from Carquinez Strait, and other storm water from I-680, the railroad, and Shore Terminals, and other potential discharges including other neighboring property owners. There is also the potential for erratic water quality due to initial tide gate operation regimes, i.e., the psuedo-tide. Because of the various inputs to the hydrologic scheme, RWQCB staff recognized the need to understand the water quality of the discharges into the new alignment, as well as the difficulty in controlling all sources. Therefore, RWQCB staff has selected the five sampling locations and the 5-year initial trend analysis approach to collect and evaluate the new alignment from a water quality standpoint.

RWQCB staff will take the SLC suggestion of adding discharges to the monitoring program under advisement, because there are numerous actions that can be taken, including naming additional third parties to the Order, issue separate Orders to other dischargers, or modifying individual existing Orders to address other dischargers to Peyton Slough.

Comment C4: ***Environmental Comments - As discussed during the September 27, 2002 meeting, please include in the Section 401 Certification specific numeric***

and narrative water quality objectives and criteria from the Basin Plan and California Toxics Rule for surface receiving waters (and/or from other data or studies for sediments) at the mouth of the new alignment, within the new alignment and at the up-stream input to the new alignment that are protective of beneficial uses and will carry out the Project Objectives mentioned above. The intent of this information is to provide a quantitative benchmark against which to measure the data obtained during the monitoring program.

Response: RWQCB has included comments from discussions at the September 27, 2002 meeting in the 401 Water Quality Certification package. The water quality objectives as stated in the 401 Water Quality Certification are consistent with the San Francisco Basin Plan. Specific numeric water quality limits are not specified in the 401 certification because the project is a clean-up activity, does not propose to discharge contaminants, and meets applicable water quality objectives upon implementation of the 401 Certification conditions. The project will discharge fill material that will be tested to ensure it meets applicable standards. Also, discharge prohibition No. 4 of the tentative order states, "The discharge of materials other than storm water, which are not otherwise regulated by a separate NPDES permit or allowed by this Order, to waters of the State is prohibited." (See also Response to Comment C2 above.)

Comment C5: ***Environmental Comments - Page IS-16 Performance Criteria. We agree with the revisions suggested by the Department of Fish & Game at the September 27, 2002 meeting, and request that they be reflected in the adopted monitoring program.***

Response: Comment noted. The revisions suggested by the Department of Fish & Game are covered in Section B above.

Comment C6: ***Environmental Comments - Pages 45-47 Sediments Exceeding ER-M. Recent soil testing in the vicinity of the new alignment indicates that the soils contain copper and zinc at levels exceeding the ER-M. As a result, such area will need to be classified as Areas of Concern (AOC) if disturbed by construction. As discussed in the meeting on September 27, 2002, all such sediments and soils associated with the construction of the new alignment will need to be remediated or disposed of in accordance with the second paragraph on page IS-46.***

Response: In RWQCB Order 01-094, the clean up of Peyton Slough is delineated as bottom sediments and dredge spoil piles adjacent to Peyton Slough. Areas of concern (AOC) are further defined both by location (slough or pile) and by chemical concentration. RWQCB staff recognizes the presence of elevated concentrations of copper and zinc in the North Peyton Marsh. While elevated in concentration, however, these areas are not included within the AOC under this Order due to their location. Notwithstanding their status, these areas have been

evaluated using the comparative concentrations and models provided in the RDR – Revision 1 (URS 2002). Based on that evaluation, these areas are not likely to cause a significant incremental increase in copper and zinc in the surface water in the new alignment.

Comment C7: ***Environmental Comments - Page IS-33 Mason's lilaeopsis. Mason's lilaeopsis was found in four locations within the project area. Please provide the approximate population size of each location, extent of impact to each of these locations, and approximate size of mats that would need to be relocated. Also incorporate into mitigation BIO-6 avoidance measures where locations of Mason's lilaeopsis would not be impacted by the project.***

Response: Comment noted. The Mason's lilaeopsis populations that will be impacted at the mouth of Peyton Slough cover approximately 57 square feet on the west side of the Slough, and 68 square feet on the east side of the mouth. At Peyton Slough No. 1 the plant occurs on approximately 24 square feet west of the mouth and 53 square feet to the east. The average maximum density of plants is 62 per 36 square inches.

Comment C8: ***Environmental Comments - Page IS-36 Delta tule-pea. Existing Delta tule-pea present within the project area will be marked with construction fencing and avoided during construction activities. Since this sensitive plant would be avoided, is it a necessary mitigation measure to harvest its seed and plant in the restored areas? If this species would be used for revegetation, planted Delta tule-pea should be included in the habitat monitoring program as with BIO-6 to document its successful or failed establishment.***

Response: RWQCB staff is in agreement with State Land Commission. Since this plant would be avoided, it is not necessary to implement a mitigation measure.

Comment C9: ***Environmental Comments - Finally, we note that the bottom/sediment samples for copper and zinc shown at the site just north of Waterman Road on Figures 3.2-2, 3.2-4 and 3.6-3 in the RDR all exceed the ER-M and may be a source of future contamination of the new alignment. Please address this issue and eliminate any possible source of such contamination.***

Response: RWQCB staff has evaluated the area between the diversion dam and the buried pipes. Based on the results of the geochemical and flux modeling in the RDR –Revision 1 and the limited area containing the elevated concentrations, it is not likely that the contaminants in this area will pose a significant increase in copper and zinc to the water quality in the new alignment. Nevertheless, Rhodia has agreed to remove bottom sediments within the area to the extent feasible and practicable, given the restrictions imposed by the co-location of the buried pipelines.

D. CONTRA COSTA MOSQUITO & VECTOR CONTROL DISTRICT

Comments from Karl Malamud-Roam, Environmental Project Manager, Contra Costa Mosquito & Vector Control District (CCMVCD) on October 4, 2002.

Comment D1: ***Initially, we want to thank the Regional Board, Rhodia, and their consultants for the effort they have all made to cooperate with the District's specific interests and with the Shell Marsh Restoration Project that the District has long supported and that is taking place largely in the same area as the Rhodia Remediation. It has been a challenge to satisfy the needs and desires of the large number of involved parties, and the documents reviewed here reflect well a general consensus on how best to clean up and then restore and manage the Peyton Slough marshlands.***

Response: RWQCB appreciates the efforts of all of the agencies and involved parties who participated in the successful negotiation of the Peyton Slough Remediation Project.

Comment D2: ***The District's proper name is the Contra Costa Mosquito & Vector Control District, not the Contra Costa County Mosquito & Vector Control District, although our jurisdiction is essentially all of Contra Costa County.***

Response: Comment duly noted.

Comment D3: ***The District is committed to cooperating with Rhodia and the RWQCB (p IS-64), as well as with the other members of the McNabney Marsh Management Committee (including the California Dept. of Fish and Game, the Mt. View Sanitary District, Audubon Society, etc.) in the long-term improvement of the site, as documented in the Shell Marsh Restoration Project CEQA documents and the Shell Marsh Management Plan. However, these documents recognize that there are multiple goals and objectives to the Restoration Plan, including protection of the public from flooding and from mosquito-born diseases, as well as the improvement of wetlands habitats. Thus, the operations of the tide gates designed and controlled by the District must necessarily reflect a range of management requirements, some of which at times may pose challenges to the ecological outcomes envisioned in the IS and the Mitigation Monitoring and Reporting Plan. The District believes that the mitigation proposals included in the Rhodia documents represent a well-reasoned design that will most likely result in significant habitat mitigation regardless of the District's reasonable gate operations, but the District cannot accept any liability for any failure of Rhodia's project to achieve its remediation or mitigation requirements.***

Response: RWQCB recognizes the multiple objectives of the remediation project for Peyton Slough. There are physical restrictions that limit the extent to which any goal may be achieved. However, the tide gate operations are unavoidably linked to the tidal range and elevations that will occur in the areas to the south of the cross levee at Zinc Hill, and therefore, to the success or failure to achieve the restoration and mitigation goals in those areas. CCMVCD, as the operator of the tide gate, will necessarily be required to operate the tide gate in a manner that, while adaptive and therefore, evolving, is aimed at achieving these goals within the 10-year monitoring plan. To accommodate the additional need to evaluate the tide gate operations, RWQCB has approved the 2-year initial period to test the tide gate operations.

Comment D4: ***The Initial Study (IS) indicates that routine maintenance dredging of Peyton Slough occurred from approximately 1927 to the early 1980's (p IS-3). While the initial date is correct, the historical review by JRP Historical Consulting Services that is cited by the IS indicates that routine dredging continued only through the 1949-50 fiscal year in the project area, and that more than fifty years have passed since Peyton Slough north of the levee has been dredged. In contrast, the reach between the levee and the railroad culvert was dredged in 1989 following the Shell Oil refinery spill onto the site.***

Response: Comment duly noted.

E. DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Comment E1: *DTSC recommends additional sampling be conducted to determine if the soil is classified as RCRA or non-RCRA waste. This information will help identify the appropriate treatment, storage and disposal methods.*

Response: Hazardous waste classification was summarized in the RWQCB Order No. 97-121, Updated Waste Discharge Requirements, which stated

> "The slag and cinder wastes that comprise the underground ore bodies are classified as mineral processing and beneficiation wastes. In 1994, the Department of Toxic Substances Control agreed that the underground ore bodies are exempt from regulations as hazardous waste management units. The Board has classified the ore bodies as Class B mining waste under Chapter 15, Title 23, Article 7 of the California Code of Regulations."

Mining and smelting related wastes are categorically exempted from classification as hazardous waste under the Code of Federal Regulations (CFR) 261.4(b)(7), commonly knows as the Bevil Admendment to the Resource Conservation and Recovery Act (RCRA), and the California version of the mining waste exemption found in the California Code of Regulations (CCR) 66261.4(b)(5A). These exemptions include waste from copper smelting operations. The RWQCB has concluded that the exemptions noted above would also apply to the mixed

cinders/slag and media/sediment present at the Rhodia site. Notwithstanding their Bevil status, i.e, exempt from classification as hazardous waste, upon their removal, they will be disposed of appropriately if they exceed the California hazardous waste criteria. Also, see response to comment D3.

Comment E2: *Soil that meets the definition of a Hazardous Waste must be handled in compliance with California Healthand Safety Code section 25123.3(b) and Division 4.5, Title 22, of the California Code of Regulations.*

Response: See response to first comment.

Comment E3: *Please clarify how the project will identify whether soils has been removed to the appropriate cleanup levels.*

Response: RWQCB staff has requested a plan for sampling areas where contaminated soils are removed for disposal based on the approach outlined in Section 3.2 of the RDR – Revision 1. Rhodia is currently preparing a soil management plan that will include confirmation sampling for soil removal activities and a soil disposal sampling and analysis plan.

F. MT. VIEW SANITARY DISTRICT

Comments from David R. Contreras, District Manager, Mt. View Sanitary District, on October 4, 2002.

Comment F1: ***... The risk of sweeping contaminated sediment along with tidal flow into McNabney Marsh has restricted use of the tide gates and effectively negated its design intent.***

Response: The tide gate was installed in 1998 and copper and zinc contamination in the slough was well known, as it had been designated as a Toxic Hot Spot in 1997. At the time that the tide gate was installed, the RWQCB staff deemed scouring of the sediments near the tide gate to be a concern, and thusly, a potential risk to surface water quality in Peyton Slough. Therefore, the tide gate operations were limited to one-way flow (downstream) under RWQCB 401 Water Quality Certification Waiver, dated May 18, 1998, for the tide gate construction project. The option for redesign and reconstruction of the gate structure to minimize scouring to less risky levels was not negated by the waiver. The waiver also specified that an approved tide gate operation plan must be prepared prior to introduction of two-way flow in the Peyton Slough. This measure is required to protect the water quality of Peyton Slough.

The RWQCB-ordered clean-up investigation had not been issued at the time the tide gate was constructed. Accordingly, there was no reasonable expectation that the contamination in Peyton Slough would be cleaned up any sooner that it will be under the current plans. The clean up of this site has proved to be an extremely

complicated and challenging project, both technically and from the standpoint of permitting. Moreover, the planning for this project has been diligent and in full compliance with the ordered timeline.

Comment F2: ***The static situation governing the use of the tide gate and the restricted water exchange through Peyton Slough and McNabney Marsh has produced the following situations which should be remedied in the Rhodia Peyton Slough Remediation plan:***

- ***The near stagnant water level regime has allowed rampant growth of cattails in McNabney Marsh***
- ***The District has resorted to herbicide treatments to control the rampant spread of the cattails.***
- ***Nesting refuge has become sparse due to the high water levels.***
- ***Low dissolve oxygen and anoxic conditions in the area o f Peyton Slough upstream of the culvert under the railroad crossing have caused occasional fish kills upstream of the railroad culvert.***
- ***The District has had to plan and budget for an aeration system in that portion of Peyton Slough affected by the low dissolved oxygen concentrations.***
- ***Construction of planned nesting islands and mounds is hindered by lack of knowledge of the real water level range.***

Response: RWQCB is aware of the issue surrounding the current conditions in McNabney Marsh and understands the Rhodia Remediation and Restoration Project to be the first big step toward the restabilization of the marsh habitat. Damage that occurred and the resulting long-term impacts to habitat and water quality in McNabney are a direct result of the following items:

- The placement of railroad culverts on the Southern Pacific line in the late 1800s and a cross levee near Zinc Hill in the early 1900s, which effectively eliminated most salt water influence from the marshes to the south including McNabney Marsh for the last 100 years
- The current capacity of the last remaining culvert under the SP railroad and the presence of pipelines buried in the existing Slough located just north of the culvert severely restricting flow to about 3 cubic feet per second (Malamud Roam 2000)
- Shell oil spill in 1988 which negatively impacted obligate wetland species in McNabney Marsh, resulting in barren areas which were invaded by fresh water species (MMAC 1998)

- Subsidence of McNabney Marsh, likely caused by the levee placed north of the culvert and the resulting long-term lack of salt water influence, further impedes proper drainage from McNabney Marsh

- Historical and current fresh water discharges, consisting of secondary treated effluent of approximately 3 million gallons per day and historically 200 gallons per minute from the PG&E plant located in the Shell Marsh, flow into McNabney Marsh replenishing the fresh water species (JRP 1997)

- The redirection of fresh water into the outer reaches of McNabney Marsh by the removal of slide gates in McNabey Marsh by CCMVCD in approximately 1990, furthering the spread of fresh water plant species

It is not clear whether the tide gate will function as designed because the tide gate has not yet been tested. RWQCB recognize that the restriction on two way flow has impeded the testing of the tide gate design. Based on the Involved Party meetings conducted in the year 2002, RWQCB staff have included a two-year period after the remediation is constructed, during which CCMVCD will operate the tide gate to evaluate the tide gates ability to function as desired.

Rhodia will reconstruct the tide gates in the new alignment using the same Nekton and flap gates currently in the existing tide gate structure.

Comment F3: ***The following remedies, in addition to the mitigation already proposed in the public notice, for the above situations should be included in the remediation plan for Peyton Slough:***

- ***The District should be reimbursed for its expenditures for labor and chemicals used to control cattails.***

- ***The District should be reimbursed for its expenditures for planning and implementing an aeration system.***

- ***The gates on the new tide gate should have electric actuators that can be controlled from a station remote from the site and convenient to the agency that has ultimate responsibility for controlling water flow.***

- ***The new northern reach for the Peyton Slough channel should be designed for optimum advantage for the management of the water level regime in McNabney Marsh.***

- ***All avenues for removing the upstream restrictions to flow—the railroad culvert and shallow pipelines—should be explored.***

If the above restrictions cannot be removed during the present remediation project, then funds should be set aside that will contribute to any future opportunity to remove the restrictions.

Response: RWQCB has successfully negotiated the clean up and mitigation requirements with Rhodia, which include the following of the above listed items:

- Remote, electric actuators on the new tide gate that will improve overall utility and the CCMVCD's response time and control over the water flow in Peyton Slough
- The northern reach of the new alignment is designed to provide added capacity. However, we emphasize that the management of water level in McNabney Marsh will likely be driven by the bottom elevation of the marshes, culvert flow capacity, and road/railroad elevations. CCMVCD will be further restricted from causing flooding or excessive erosion during their 2-year operation period.

RWQCB staff has negotiated additional remedies and mitigation that were proposed during several of the Involved Party meetings and accepted by the participants including MVSD. These remedies and mitigation activities include a net gain of approximately 5-1/2 acres of wetland habitat onsite. As such, this project does not require offsite mitigation.